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A GUIDE
TO
TRAINING & HORSE MANAGEMENT
IN INDIA,
WITH A
HINDUSTANEE STABLE VOCABULARY.

BY
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SECOND EDITION.
REVISED AND ENLARGED.

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Dedicated to
COLONEL MONTAGU JAMES TURNBULL
ON HIS APPROACHING DEPARTURE TO ENGLAND
AS A SMALL TRIBUTE OF RESPECT
FOR THE POSITION HE HAS HELD FOR MANY YEARS
THAT OF OUR FIRST AUTHORITY ON HORSES AND RACING
AND THE ACKNOWLEDGED LEADER OF
ORIENTAL SPORTING LITERATURE.

M. H. HAYES.

Cawnpore, 20th August 1874.

PREFACE TO THE SECOND EDITION.

I AM but too well aware of the many imperfections and shortcomings of the First Edition of this book, and have tried to the best of my ability to correct them in the present one. Much redundant matter, such as allusion to horses of local and transitory fame, I have omitted ; and without enlarging the work to any extent, have substituted several practical hints that appeared to me likely to be of use.

My object from the first has been to present to the horse-loving public a thoroughly practical book of easy reference, and to accomplish this I felt that, my only chance of succeeding was to condense the information as much as possible, and in many cases rather to suggest than to give long-detailed advice. A book on training must of necessity be more a collection of useful hints than a cut and dry account of an exact art, especially in India where the style of horse to be trained varies so much. To give these hints force, as well as to avoid prolixity, I have used the words "ought" and "should" perhaps too frequently, though, had I not done so, lengthened reasons for points of horse management, which required only mention to be at once accepted as correct, would have been imperative.

While compiling and revising the "Stable Vocabulary" in this edition, I had the valuable and ready assistance of Ressaldar Murtaza Khan, Ressaïdar Sahib Zuma Khan, and Salooturee Beharee Singh, 18th B. C., to whom I referred every word and expression on which there was the slightest doubt in my mind. I have drawn largely from the "Zeenut-ul-Khyl," a Veterinary Manual by Muhumud Mihdee, for names of diseases, colours, etc., taking care to adopt only those terms, that are in common use among native farriers. Colonel C. L. Brown, Mr. Elliot, 3rd B. C., and other friends have most kindly given me, from time to time, useful words that I had not met with before.

I have limited the "Phrases" as much as possible to idioms.

Every Hindustanee Dictionary is particularly vague in its description of the points of horses, but I trust that my readers will be enabled to obtain from the "Stable Vocabulary" exact information unobtainable from other books.



PREFACE TO THE FIRST EDITION.

THESE notes are solely intended for the guidance of amateurs, who may be new to the work of training. If an owner has a first-class horse he had much better entrust him to Wheal, Dignum, Bowen or Donaldson, than, without experience, to try experiments on his own account with valuable cattle; but there are many men, who perhaps have neither horses good enough to re-pay the expenses of a training stable, money to spare, nor possibly opportunity, that are fond of horses and would be glad to get a few hints, which might be of use in bringing a horse into condition for perhaps a local Meeting, or Sky Races : for such I now write, and hope that what I have found by experience to be good practice, may answer equally well in the case of others.

The only book I know of on training horses in India, is "The Griffin's Aide-de-Camp," which describes the system pursued some thirty years ago with Arabs on the Bombay side, one entirely opposed to our modern practice; the latter I shall endeavour to describe briefly in the following pages. This is a task I would not have set myself had it been previously attempted. The

subject is of interest to many, and if this book accomplish nothing better, it may open up discussion, which always tends to sift sound from faulty practice. I have purposely refrained from touching on points of horse management, that have been fully discussed in the standard works on this subject, and that bear not only a local but an universal application, and I have tried, while avoiding the hard beaten track, to point out here and there a soft bit of "going" on the Indian Turf to those unaccustomed to its peculiarities, and hope that my lead will not bring any to grief.

In conclusion I wish to thank most sincerely my friend, Veterinary Surgeon Anderson, R.A., for the many valuable suggestions he gave me while I was writing this book. I am also much indebted to Mr. Wheal for having placed at my disposal a list of most of the jockeys in the three Presidencies. I have much pleasure in acknowledging the many practical hints I have received on training from Messrs. Donaldson, Wheal, Dignum and Irving at different times.



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A GUIDE TO TRAINING AND HORSE MANAGEMENT IN]

CHAPTER I. RACING IN INDIA.

Racing men and horses—On forming a useful stable—The style of race horse suited to India—The different classes and their respective form—Timing.

IN England racing is almost entirely confined to professionals and a few monied men, who can afford to run horses for amusement, just as others go in for yachting, hunting or shooting, caring little for the cost, as long as they get sufficient excitement out of the particular sport they may pursue. There racing is such a complete business, and its attendant expenses are so heavy, that a man of moderate means cannot, with any safety, follow it, unless he adopts it as his profession. In India the small amount of public money and limited speculation render the turf too precarious a means of living for even the cleverest men, except in the case of jockeys and trainers, while the few of the latter that are out here find training does not pay, unless they be light enough to earn, as jockeys, their winning and losing mounts on the horses they have charge of.

There are naturally few representatives of the monied section of the racing public in India, which is

essentially the country for a poor man to do a little racing in, without it costing him much, provided he knows *something* about horses: for stable expenses are very moderate (say forty rupees a month for each horse including every thing), while none but first-class animals cost any extravagant sums. But the fact which above all enables men of small means to race in India, is the system that confines the majority of races to particular classes of horses of a large variety. These events serve to fill up prospectuses and to accommodate owners of all sorts of nags. It is always difficult to collect sufficient added money to make it worth while running first-class animals, even were there more of them in this country; the fact being that, except at the great centres of racing, it is impossible to get a field of such horses, and handicaps have to be resorted to in order to bring the one or two of them, that ever appear at an up-country meeting, together with the second raters. Men who subscribe to races like to see fun for their money, and Stewards, in order to get fields together, are obliged to add to handicaps, "all horses," and selling races, those for Arabs, Country-breds, galloways, ponies and for maidens of the different classes, not to mention still more minute division. So an owner would have bad luck indeed were he not to find some event or the other suitable to his horses, even if he had nothing better than a Country-bred pony, a half miler and a jumping nag of sorts, although their united value might not exceed a thousand rupees. It may be objected that this is not *racing*, which it certainly is not in the English sense of the word, but for all that, a man, who is sufficiently fond of horses to look after and manage them himself, can get good sport with a few moderate ones out here. Personally I'd take more interest in training an inferior horse and by skill and work, winning races with him in moderate company than in owning (as many do at

home) first-class horses and having them entirely in the hands of trainers, and being obliged to depend on the latter for information as to their form and pretensions.

Six or seven horses will be found a large enough string for up-country meetings, if the owner intends to look after them himself, and expects them to win enough to cover their expenses. To accomplish this one should have horses of an useful class, that would be certain to find races to run for, at the different meetings to which they might go, with a fair chance of pulling off an event now and then. Keeping horses too good for one's line of country, is hardly more paying than owning horses too bad for it. The presence of first-class horses (if their form be known) deters owners from entering against them, the races don't fill, and even if they do on an odd occasion, there is either no lottery or their horses get bid up so high, that it is simply "buying money" to touch them, which if one does, and anything goes wrong, then "where are you?" While in handicaps a good horse, among moderate ones, gets so much weight piled on, that the odds are that it either breaks him down or spoils his action.

A first-class steeplechaser does not come under this objection, for "between the flags" one's money is "in the air," and men will always enter on the outside chance of a fall or refusal. Besides this, the added money alone is generally worth running for, even without dipping into the lotteries which, by-the-bye, always fill well on a "lep race."

One or two good second class Walers that can stay up to a mile and a half, a couple of Arabs—especially if one or both be gallows, and are at the same time good enough to run among the big ones—like what Caliph, Acrobat, and Crossbee, were—a fast 13-2 Arab or 13-hand Country-bred pony, a half miler for selling races, and a chaser of the Delphos,

Brown Duchess or War Eagle style, would form the beau ideal of an useful stable for up-country meetings.

A good maiden is a real Eldorado, whether Waler, Arab or chaser, but they are particularly hard to get and uncertain to back, unless one has first-rate trying tackle with which to test their powers. I may here remark that maidens in India take the place that two and three year olds occupy in England, for many of the most important races are confined to horses that have never won during any previous season, *i.e.*, maidens, this being entirely irrespective of their age, though of course, allowance of weight for it is always given. I don't know of any races for horses of particular ages.

Though Arabs and Country-breds get three and two stone respectively from Walers for class allowance, this difference does not bring the best of them together with even second raters of the other class.

In late years, except Echo and Merryman, we have had no Cape horses that could hold their own against Walers, and the new C.T.C. scale of weights by which they get an allowance of a stone from the latter, show clearly how cheaply their powers are held among racing men.

There is a sort of fatality about English horses in India, and few indeed out of the many that are imported, prove, as racers, to be worth their passage money out to this country. Their feet and legs generally go to pieces on our hard race courses, and they can rarely stand the climate. The style of race horse that will pay out here, is one that is particularly sound, can stay a distance, carry weight, and be at the same time pretty fast—qualifications that will ensure a long figure for their possessor in any country. Indian race courses are very trying to a horse's feet and legs, the majority of them are hard, and the continual jar sooner or later makes horses go short and become shinsore, while even if they

happen to be soft, the going is simply heavy without any elasticity, and this throws more work on the back tendons and suspensory ligaments than they are generally able to stand. On one hand the joints, lining membrane of the bone and tendons of the extensor muscles of the fore legs are unduly taxed, on the other those of the flexor tendons, and we never obtain the happy medium afforded by the light springy turf in England. Good legs and feet are the first consideration, and then comes the power of carrying weight and being able to stay. An English horse should be able to race under 11 stone and a Waler under 7lbs. less, and with these weights up to be able to travel $1\frac{1}{2}$ mile. If a sound game horse can do all this, his being "troubled a little with the slows," will not prevent him from paying his way. A flashy thorough-bred that can stagger home in extraordinary good time over 5 furlongs with 6 stone up, would be utterly out of place in India, and would only be fit for selling races.

Race horses cost so much in England, that I strongly suspect, that, since the time of Morning Star, there has been hardly a single horse sent out here with even second class pretensions. Bridesmaid is the best we have had for some years, and the way this mare, which at home was only up to about fifty-pound selling form, made our best Walers gallop, goes far to prove that the only reason English horses get beaten by Walers in India is that, those sent out are but the very dregs of English racing stables. Perhaps the greater soundness of the Waler may have something to say to his success. I believe that blood stock are bred in the Colonies more with a view to obtain stoutness than they are at home, and besides this, Australia has more or less a tropical climate. We have yet to see how even a second class English race horse—not a selling plater, but one worth say £1,200 or 1,500—would fare with our

Walers. Of course I do not mean to say that, one as good or better could not be imported from Australia for a similar sum. There is hardly scope enough in India to make such a large investment in one horse pay, which few out here could afford to do, even if so inclined. At the prices that are given in India—£500 or £600—for a Kingcraft or a Satellite, and a couple of thousand rupees for a second rater, more value for one's money can be got by investing in Walers, and consequently they are the only horses, with an occasional exile from England, that are kept for races for "all horses." *A propos* of the value of a race horse in India, there is an editorial remark in the *Oriental Sporting Magazine* for March 1874, concerning the Waler colt Kingcraft, which, as far as we can judge, is the very best horse ever imported into this country, that is worthy of note. "We hear Kingcraft's owner asks Rs. 14,000 for the horse, a sum which we should say no horse, however good, can ever be worth in India, taking all chances into consideration." Kingcraft cost, I believe, £500 in the Colonies; if we add to this his passage money to India, travelling and training expenses, jockey mounts, subscriptions to races, etc., the total will not be far from Rs. 10,000. As a set off against this, he has won for his owner in his maiden year about Rs. 30,000 including bets and lotteries. I mention this sum advisedly, and don't think I am far from the mark. To win this he had good luck, as he remained both sound and game, and during that golden season met nothing as good as himself. Having given these statistics, I leave the reader to do the "cyphering" for himself.

When the Waler colt Kingcraft, 3 years, 5st. 13lbs., won the Governor-General's Cup (January 1873), 2 miles in 3m. 41s., almost everyone said that he was the best horse ever imported, while some few wondered at his owner not sending him

to run in England. To estimate approximately the chance he might have had there even in Handicaps over his own best distance, let us take the only "line" at our disposal, namely "time." Chivalrous, 4 years, 7st., won the Great Ebor Handicap (August 1874) 2 miles in 3m. 31s. Both Chivalrous and Kingcraft won these races with great ease.

In hack selling races, winner to be sold for from Rs. 200 to 500, when not beyond $\frac{3}{4}$ mile, Country-breds sometimes hold their own, and those that do so have almost always a strong dash of English blood, from which they generally derive their turn of speed, as well as some of their inherited infirmities which doom them to running for such minor events. A useful horse for hack selling races ought to be able to do with 8st. 7lbs. up, $\frac{1}{2}$ mile in 54 secs., or $\frac{3}{4}$ mile in 1m. 21s. or 1m. 22s., on an ordinary race course; though such timing would not be unexceptionally good.

Since the time of Meg Merrilies, that won the Governor-General's Cup in 1858 and again in the following year—Shamrock, the black mare Gypsy, and Mermaid, late Jessie, have been nearly the only Country-breds that could stay as well as gallop. Gypsy beat the Earl and Silvertail, who were both quite first-class Arabs, at the Calcutta Meeting of 1871, doing the mile in 1m. 52s., carrying 8st. 8lbs., but by maiden allowances and penalties, the Arabs were actually giving her 8lbs. At weight for age and class the Arabs might probably have beaten her, and would certainly have done so under these conditions, for two miles.

As a rule Arabs will always beat Country-breds for a distance at their class allowance, though the latter have the legs of the former for short races.

For galloway and pony races Arabs are undoubtedly the best, though now and then a Waler, like Seagull or Milkmaid, may be found good enough to

run in these classes, but a Country-bred never. The *multum in parvo* style, which is here wanted, is the very thing it is found almost impossible to breed in India. The chesnut 13-2 Kattywar Robin was the best Country-bred pony or galloway I have seen, but even he was never within a stone of his stable companion King David, the Arab pony, though they were exactly the same height. Robin looked quite three-quarters Arab, as did that little wonder Orion.

Though there are many instances of 13-2 ponies running successfully among galloways (14 hands and under) at the usual allowances of 4lbs. the half inch, it is rare indeed to meet with a pony lower than that which can do so.

At most meetings, the following classes are those for which races are generally made, with the distances usually run :—

1	All horses	...	...	1 to 2 miles.
2	Arabs	...	...	1½ to 2 "
3	Arabs and Country-breds	...	...	1 to 2 "
4	Country-breds	...	...	¾ to 1 mile.
5	Galloways (14 hands and under)	...	...	½ to 1 "
6	Ponies (13-2 and under)	...	...	½ "
7	Ponies (13 hands and under)	...	...	¼ to ½ "
8	Selling Race horses	...	...	½ to 1 "

For "all horses" we depend on Walers, for "Arabs and Country-breds" on Arabs, for "Galloways and Ponies" on Arabs, and in selling races on Walers or Country-breds. Arabs can be rarely got as small as 13 hands, so Country-bred tats are almost always run in races open to ponies of that height and under.

In discussing the "form" of horses, we are obliged to bring in the subject of timing, as it is so universally used and regarded out here. I am quite aware how fallible a test it is, and how much it varies according to the state of the course and the way a race is run. The great majority of Indian race courses are such dead levels, and the "going" so very much the same on all, that there cannot be the same objection to

timing out here as in England, where every course varies in severity, while rain may fall at any time and make the track heavy. Besides this, jockeys at home "wait" longer than they do out here; but in races where several horses start, and in which the running is certain to be cut out by some of them, the timing of similar horses is singularly close on the same courses, considering how variable the English climate is. For instance, take the timing of the Two Thousand, Derby and St. Leger from year to year.

We find timing is a perfectly reliable test in pedestrianism, and can pronounce with certainty that a man who can do his 100 yards under 10 seconds or his mile under 4m. 20s. on level ground is undoubtedly a first-class runner, and so would be a horse who could, with weight for age and class, do his mile in 1m. 44s., or two miles in 3m. 42s. on the Calcutta course for instance, *if he'll but try* in public, for herein lies the source of nine-tenths of the disappointments timing leads to. The "going" on most Indian race courses, except at Bangalore, Secunderabad, Poonah, and Deyrah Dhoon, is very similar, being almost quite level and pretty hard. But it is impossible to get all horses to run the same in public as in private. I would strongly advise the young turfite, to limit the use of the stop watch to public performances and to regulating the pace of training gallops. If one wishes to test the powers of a young one, it should be by no means done by "putting him against the watch," but by trying him with some horse that has run well in public and is at the time of the trial in racing condition. Then if the young one beats the plater—we apply this term to all horses after the season in which they lost their "maiden"—and does the distance in really good time, so much the better. No exact information as to a horse's form can be obtained by timing his gallops when he takes them alone: for not one horse in ten will run

the same by himself as in company, and it would only lead to disappointments to allow for an error that, for all the owner knows, may be either for or against his horse's powers.

I believe that, even with the greatest care, the time test alone cannot be relied upon, with a smaller margin for error than 7lbs. in 1 mile, which, allowing for difference in horses, and for the different way races are run, we may assume would be equivalent to from 20 to 30 yards in that distance or from $1\frac{1}{4}$ to 2 seconds, which doesn't say very much for timing, beyond affording an approximate idea of a horse's powers.

With the reservations mentioned we will glance at some instances of first-class timing done by horses of the different classes that we have specified.

At Calcutta, January 1868, the Waler, Rocket, 9st. 9lbs. beat Vanderdecken, 9st. 4lbs., in the race for the Merchants' Cup, 2 miles in 3m. 44s.

At Calcutta, 1869, the Viceroy's Cup, 2 miles, was won by the Waler mare, Favourite, 9st. 5lbs., in 3m. 42s.

At Sonepore, 1873, Satellite, 10st. 8lbs., and the 5-year old mare, Phillipine, 8st. 9lbs., went out the 1st mile in the race for the Ticcaree Cup in 1m. 44s. and the mare won in 2m. 57s., the distance of the race being 1 mile 5 furlongs.

Now for Arab timing.

At Sonepore in 1871, Silvertail, 9st. 10lbs., won the Desert Stakes, 2 miles in 3m. 54s.

At Bombay, March 1871, Growler, 9st. 5lbs., beat the Earl in the $1\frac{1}{2}$ mile Handicap in 2m. 52s.

At Calcutta, January 1871, Sunbeam beat Growler for the Bedouin Stakes, 1 mile, both carrying 9st. 3lbs. in 1m. 53s.

At Madras, February 1874, g. a. h. Lucifer, 10st. 5lbs., with a flying start won the 1 mile Arab Handicap in 1m. 52s.

The Country-bred, Shamrock, 11st. 7lbs., won a $\frac{3}{4}$ mile Handicap at Lucknow, February 1869, in 1m. 24s.

The same horse, 8st. 13lbs., at Calcutta, 1870, ran a mile in 1m. 52s., which is the same time that we have seen Gypsy do that distance with 8st. 8lbs. up.

Both Lurline at Sonapore and Mermaid at Mozufferpore have done $\frac{3}{4}$ mile in 1m. 24s. with 10st. 7lbs. up. This is good Country-bred time, though a stone worse form than Shamrock's; which can easily be imagined by any one who has seen the great evergreen in his palmy days.

The 14-hand Waler, Seagull, 10st. 4lbs., did $\frac{1}{2}$ mile in 56s., and the 13-2 Arab, King David, 8st. 9lbs. did the same distance in 54s. ! Both performances were done at Sonapore, 1871.

The 13-2 Arab, Abdool Rayman (Little Hercules), 8st. 10lbs., won the $1\frac{1}{2}$ mile Handicap up the trying Poonah hill in 1871 in 2m. 55s. In the same year he won the Maiden Galloway Plate, $1\frac{1}{4}$ mile, at Bombay, with 8st. 6lbs. up, in 2m. 23s.

The 13-hand Country-bred pony, Orion, with a feather was able to do in his best days $\frac{1}{2}$ mile in 55s.

In giving these times I have as much as possible considered only the performances of aged platers, in order to simplify comparison between the different classes.

It is hard to define what second-class form is, as that principally depends on where one is racing; for of course what would be second class at first-class meetings, would become first-class at minor ones. At the large fixtures second class time, for Walers at weight for age for a mile, would be about 1m. 50s., for $1\frac{1}{4}$ mile 2m. 20s. A second class Arab, that would be useful for up-country meetings, ought to do a mile in 1m. 57s. and $1\frac{1}{2}$ mile in 2m. 55s. with weight for age.

English jockey, an owner's only safety is in employing quiet native lads. Probably he will have to make a selection from his syces and grass-cutters or from their sons, and be obliged to teach them himself to ride. As the British nondescript is to be avoided, so is the genuine "coachwan," who delights in gold laced caps and in sticking out his toes in front of his horse's nose. The best native riding lads I have met with have been syces' sons whom their masters taught and succeeded in keeping in order. From Rs. 6 to Rs. 10—the "coachwan" will require Rs. 30 a month—will be quite enough for such boys, with a small present, say Rs. 5, when any of the horses win. The master should be most careful in keeping them in their place, and always insist on their helping the syces when grooming. Treat them fairly, and a little liberally at times, but never give them their heads nor allow them to gallop a horse, or take one out of the stable without being present oneself. The three great faults of native boys are that they ride too long, stick their toes out too much in front, and don't "ride a horse up to his bridle;" this latter failing is most marked in race riding, when they never seem to be able to catch hold of a horse's head. Besides this, when silk is donned, they almost all lose their heads when it comes to a finish with English jockeys.

After a native boy has been taught to ride with a fair seat and good hands, the next thing is to give him some idea of pace, and this is usually taught by employing the "anna system." As there are sixteen annas in a rupee, a four-anna gallop is made to stand for quarter, eight annas for half, twelve annas for three quarter, and sixteen annas for full speed.

Each quarter of a mile should be clearly marked by a post or pillar on the course where horses are galloped, and when instructing native boys, the trainer should tell, before each gallop is given, how

many annas' speed he wants, and then he should accurately time each quarter of a mile with his stop watch, so that after the gallop, he may be able to correct the boy, and point out where the latter went too fast, or too slow, as the case may be. The eye alone is not sufficient to detect slight variations of pace; besides that, if the master holds the watch, the boy will more readily believe that he is being told correctly. If the lad be willing and intelligent under this system, with instructions as to holding the hands, the position of the leg and foot, the proper length of stirrup, etc., he ought to ride a training gallop fairly, in say three months. I think it is much the best plan to teach the lad the rates of speed by reference to the exact division of time, and not by a conventional standard (*vide* page 77). Take for instance that the length of the race course is $1\frac{1}{2}$ mile, that the horse in question can do this with the boy up at full speed in 2m. 50s. and that the order for the training gallop is "once round at eight annas;" then the time the horse should take would be 5m. 40s. This I know is slower than the accepted idea of what half speed should be; but if a faster pace be required, it is just as easy and tends less to confuse the lad, to increase the number of annas ordered. Here I take for granted that the race course is level, like almost all our Indian ones. At Deyrah Dhoon—which is nearly flat for the first $\frac{1}{2}$ mile, down-hill for nearly 5 furlongs, then pretty level for $\frac{1}{4}$ mile, and then up-hill for about the last $\frac{1}{2}$ mile from home—further directions would be requisite to teach the lad to slightly vary the pace, as the nature of the ground would require. In alluding to the Deyrah course, I take for granted that the training gallops would commence at the brow of the hill, and not at the winning post, which is a couple of hundred yards (I speak from memory) further on.

Good syces are very difficult to get, and require a great deal of looking after to keep them up to their work. Those accustomed to racing stables are almost a caste in themselves, and would most unwillingly take service elsewhere, as they get better pay, generally Rs. 7 a month, and a like amount for every win their horses score. The only way to keep them straight, is to get them to value their situation, pay them punctually, never at any cost to retain a discontented syce, and above all things to avoid beating and calling them names. If a horse owner does all this, and is in and out of his stable three or four times a day, he will have seldom fault to find with the syces. They will work well under their master's supervision, but nothing they hate so much as to be ordered about by anybody else.

An owner should avoid letting syces get gram, *suttoc*, &c., from the bazar, as this would be a great temptation to them to play into the hands of the *bunnyahs*. The corn should be kept in one's own "godown," and a trustworthy servant appointed to give it out before each feed, and not at one issue for the whole day. In this presidency, almost all the syces are "Chumars" (being "Jusiahs," "Jaiswarahs," &c.), with here and there a Mussulman; yet, though of low caste, if an European or sweeper sprinkle the gram with water, the syces will regard it as polluted, and after that, will on no account eat it, and then of course the horses will get their full allowance.

The only perquisite syces have, besides *dustoorie* from the *bunnyahs*, is four annas from the *nalbund* for each time a horse is shod.

Grass-cutters get from Rs. 4 to Rs. 5 a month. Half the number should go out daily to cut grass bringing in a double supply, say about 28 lbs., of picked *doob*, while the other half remain behind

to help the syces. Straw for bedding will cost about one rupee for each horse.

It is usual to make the steadiest syce headman over the others, and to have him responsible if any thing goes wrong. He is called a Jemadar syce, and gets an increase of one or two rupees a month.

It is a good plan in a large stable to employ a native shoeing smith on a fixed salary. As a rule they are very neat workmen—though their system is bad—and will readily learn the style of shoeing affected by their masters. Their pay will be from Rs. 10 to Rs. 16; for this they will shoe and plate their masters' horses, and accompany them from one race meeting to another. During spare hours they will expect permission to shoe on their own account.

CHAPTER III.

Food.

Oats—Gram—Kúlthee—Barley—Proportions of food—Wetting
Gram—Maize—Bran—Linseed—Suttoo—Lucern—Doob-grass—
Feeding and Watering.

THE best food, to train horses on, is undoubtedly oats, if they can be procured heavy enough, with in some cases an addition of beans, which are used at home, or of gram which is its substitute out here. In heavy oats, the proportion of flour to husk is greater than in lighter samples, and as the measure of a horse's appetite is by bulk and not by weight, he will naturally derive more nutrition from the former than from the latter, if, as is the case with race horses, he gets as much corn as he can eat. Samples of oats at 47lbs., 42lbs. and 32lbs. to the bushel will yield respectively about $\frac{3}{4}$, $\frac{1}{2}$ and $\frac{1}{3}$ flour, which proportions nearly give the nutritive value of these samples. Indian oats are generally so light (running seldom more than 40lbs. to the bushel), and consequently contain so little flour, that it is most advisable to supplement them with gram, which holds a very large amount of muscle-forming ingredients in proportion to its weight. Gram, when used in large quantities, is very heating, and few horses can stand more than 10 or 11lbs. of it without derangement to their digestion, which is soon shewn by the dung becoming loose and sticky, as if it were mixed with gum. When a horse gets into this state, his whole system becomes liable to inflammation, and in a short time his legs may share in the general disturbance and will rapidly become hot and fill. The dung of a healthy horse should be fairly formed, and be perfectly brittle, friable and devoid of all stickiness and adherent mucus, which are signs of an irritated state of the stomach and intestines,

from the coats of which mucus is discharged, which mixes with the dung and gives it the appearance I have described. This is purely a mechanical effect caused by the irritation due to the presence of particles of undigested gram, and indicates that the system of the horse is unable to assimilate the whole of the corn eaten.

By using a fair proportion of gram with the oats it will be found that a horse will consume and digest a larger amount of nourishing food than if either grain were used alone. The proportion of gram should be varied as the horse is found to digest the mixed food, taking the state of his dung as the guide to go by. No fixed rule can be laid down, for horses' digestions vary nearly as much as men's do. It will generally be found that old horses can consume with advantage a larger proportion of gram than young ones, as it is not so heating to them. The proper proportion of gram will vary from one quarter to one-third of the whole. Gram a year old should always be used in preference to new.

In India the standard seer = 2·05lbs., and the maund = 40 seers. In England 1 bushel = 4 pecks = 8 gallons = 16 quarterns. A quartern of oats, which is usually called "a feed," weighs $2\frac{1}{2}$ lbs., taking the bushel at 40lbs.

In this Presidency when we speak of gram we always mean *chunna*, but in Madras and Bombay *kúlthee* or black gram is extensively used for feeding race horses; it is always given boiled and has a wonderful effect in getting horses into condition and improving their coats. Almost every racing man in the other two Presidencies (for it cannot be easily procured in this one) prefers it to *chunna*. About half oats and half *kúlthee* are the usual proportions. When boiling it, one should take care to use only just enough water to cook it, so that when fully done, the water that is over in the

pot may be absorbed on the *kúlthee* cooling. In this way none of the flavour or nutritive parts will be lost. Madrassee *ghora-wallahs* are very fond of using more water than is necessary, so as to have some of the juice over to mix in their curries or "pepper-water." This of course ought not to be allowed.

Oats can always be got from Tirhoot *vid* Patna, Meerut, and Deyrah Dhoon.

The husk of Indian oats is peculiarly hard, as it contains a very large amount of "silica." This grain ought to be bruised, not ground, for by the latter method the flour being heavier than the husk separates from it and falls to the bottom of the trough or nosebag, while the husk remains at the top: a horse will soon learn to put aside the latter and consume only the flour. But nature intends them to be consumed together, and it is always safest to follow her dictates.

The bruising is done by a machine for that purpose, in which the corn passes between two flat revolving wheels, and each grain comes out separate from the others with the husk completely crushed, but still retaining the flour. A small machine costs about Rs. 65 in Calcutta.

Whether we use *chunna* or *kúlthee* with oats, we must regard the latter as almost indispensable in order to bring horses out in their best form to race, and no trouble should be spared in procuring this grain. But if it is not to be had, then the best substitute is barley; in this country we use it parched, and in every bazar there are native parchers called *bhurbhúnjas* who charge a couple of annas a maund for preparing it; after this it should be broken in an ordinary hand-mill which the grass-cutters can do. It is far better to prepare one's own barley in this manner than to use *ardawah* as it is sold. This is supposed to be a mixture of

ground parched barley and gram, but by the tricks of trade it is always more or less adulterated by dirt of sorts, damaged or inferior grain is used, and the barley in it is never thoroughly parched, for the less that is done the less weight is lost, which is an object to the grain-seller.

In this Presidency race horses are never trained on anything else but oats and gram, or parched barley and gram. Bruised unparched barley alone has been found to keep troop and private horses in first-rate condition, but I have never known it tried with race horses. Experience, I think, shows that parching barley renders it more easily to be digested, and this is a most important point to be considered in training where one's object is to get a horse to eat and digest as much grain as he possibly can. In ordinary hacking work, when a horse is only allowed four seers of corn, it matters little if that which he gets be not quite so digestible as another, but when double the quantity is used the slightest difference is of consequence. It is not *natural* for a horse to eat eight or nine seers of corn a day, but when we get him to do so we are obliged to use every *artificial* aid we can to preserve him in health.

During the hot weather and rains, when the horses are out of work, boiled unbroken barley (about 2lbs. mixed with 1lb. of bran) may be given as the evening feed. This will tend to keep them in health and cools down their systems.

Indian barley runs about 50lbs. to the bushel ; average English 56lbs.

As a rule, as soon as a horse gradually gets into strong galloping work, he ought to have as much corn as he can eat, provided the chief part of it be oats. 10lbs. will be enough to commence on with a Waler, and may be increased by 1lb. a week. A full amount for a Waler daily would be gram 4 or 6lbs., oats 12 or 10lbs., or gram 6lbs., parched barley

10lbs., making altogether 17lbs. of corn, including 1lb. of *suttoo* which would be given in any case.

1lb. to 2lbs. of bran may be used with the gram and barley, if the dung becomes loose.

An Arab will eat from 2lbs. to 4lbs. less corn than a Waler.

I have trained an old Arab very successfully on the following food :—

Oats	... 6lbs.	| Bran	... 2lbs.
Gram	... 4lbs.	| Linseed	... 1lb.

The two latter being given at night mixed with 1lb. of corn, while the linseed should be kept boiling for three or four hours previously.

Some horses are like some men, they will train on anything, just as George Seward, the best "sprint" runner that ever toed the scratch, preferred pig's cheek and greens to any harder food when training. The Tyne watermen believe in suet "puddins" to get an oarsman into condition and to "give him," as Jack Clasper used to say, "an inside"! Still I think that experience will bear me out when I say, that with good oats and gram a horse can be got 7lbs. better than without oats at all.

Custom varies considerably in the matter of damping gram with water. If it be soaked for over half an hour, it may begin to ferment and consequently prove injurious. But no harm can be done, as is usually the practice, by slightly wetting the gram five or ten minutes before giving it to the horses. Advocates for giving it quite dry urge with much reason that a horse cannot bolt dry gram but must chew it well before he can swallow it, while if it be wet, a greedy feeder may bolt it down without masticating it at all, and thereby giving work to the stomach which ought to have been done by the teeth and salivary glands of the mouth. The only argument I have ever heard advanced for giving it damp is, that if dry a gross feeder may choke

himself, but surely if this practice be commenced with caution, a horse would soon learn to avoid this danger.

In some parts of India, the Punjab for instance, maize is very cheap, and it appears to be first-rate food for hacks. In fact it is always given to race horses and match trotters in America. It ought to be ground as fine as oatmeal (in Hindustanee *peesna* means to grind fine, *dulna* to grind coarsely, like as gram is usually broken) damped well and mixed with chopped hay or *bhoosa*; so that the particles of meal may adhere to either of the latter, whichever may be used. General Ryves strongly advises that maize should never be used alone as food for horses, and states that there have been many instances of horses fed on it, shedding their hoofs.

For hacks a couple of seers of bran given daily with the gram answers very well; but with race horses the custom is to give bran only in the form of a bran mash, usually on Saturday nights, as they have a rest next day. The proper way to make a bran mash, is to take a stable bucket and scald it well with boiling water, throw the latter out, put into the bucket about 3lbs. of bran, with an ounce of salt, and pour in as much boiling water as the bran will take up; this will be about equal in weight to the bran itself, calculating the gallon of water to be equal to 10lbs: the mash should then be well covered, so as to keep all the steam in, and left to stand for a quarter of an hour or twenty minutes.

On Saturday nights the bran mash may be supplemented with advantage by linseed, 1 to 1½lbs. of which is boiled for several hours, and then 2lbs. of bran is added and the whole well mixed up; this mash should be covered up as before described, care being taken to have the linseed thin enough to soak up the bran. If it be found that the corn purges

the horse, or his coat be deficient of the desired polish, this linseed mash may be given on Wednesday nights, as well as on Saturdays.

Linseed has a peculiarly soothing effect on the urinary organs and mucus membrane, though probably entirely in a mechanical manner; on this account, it should be used in the form of a mash and also as linseed tea, instead of plain water, when horses have anything wrong with their kidneys or bladder, such as difficulty in staling, dark, bloody coloured or pungently smelling urine, the latter being due to an excess of ammonia.

I have found that through the whole of the cold weather training a couple of pounds of carrots for each horse is most advisable. They may be stopped a week or ten days before running.

Suttoo is parched gram and barley meal mixed. Horses on returning from their morning's work usually get 1lb. of it stirred up in water. They are very fond of it.

A horse should have at least two ounces of salt every day divided between his four feeds. Salt is most essential to a horse's health, and especially when he is in training, for then there is an extra waste of it through perspiration, which has a very marked saline taste, that decreases gradually as the horse gets fit. ●

For the hot weather, the horse owner should sow a patch of lucern; the seeds are easily obtained, and the only thing the crop requires is flooding with water a couple of times a week. When out of work two seers will be a fair allowance for each horse, half to be given before the mid-day feed, the rest after.

With the best corn in the world, it is quite impossible to train a horse properly without good grass, and I believe more depends on the quality of the latter than on that of the former. Nothing but

the best picked *doob* grass (the Madrassesees call it *hurryalee*) should be used. It is that peculiar root grass that grows on, or rather in, the surface of most sandy soils, and spreads itself as a creeper along the ground, so that it cannot be cut like ordinary grass, but has to be rooted (*cheeled*) up with a trowel shaped knife, called a *khurpa*, which grass-cutters use. One day's drying in the sun is quite enough, no matter what the stage of training be, and though to a man fresh from home, it may seem strange practice to train on green grass, yet for all that, it is the proper thing to do in the case of *doob*, which, if dried for several days, loses its flavour, sweetness, and nourishing properties. We should remember that simple dried grass is not hay, but that, to become so, it has to undergo a process of fermentation when stacked in ricks, which entirely changes its character. English grass, on account of the climate, is full of moisture, that has to be got rid of by fermentation, which converts it into hay. Were this not done, a horse would be obliged to eat a very much larger quantity of grass, which would distend his stomach and unfit him for fast work. But in *doob*, which only grows on the driest soils, there is only just sufficient moisture to retain fresh and fragrant the sweetness and flavour of this grass.

Doob grass when cut during the *rains* loses about two-thirds of its weight on being converted into hay.

Grass given to horses should be carefully picked and well beaten to get rid of the dust and earth that may adhere to the roots, and grass-cutters should not be allowed to wash it, as they often do, before bringing it in, in order to make it look fresh and green.

On no account, unless he is a very gross feeder indeed, should a horse be stinted in grass; naturally when he is first put into training, he will eat more

of it, than towards the end of his preparation, for as his powers are taxed day after day at work, he will instinctively begin to eat less grass and more grain, in order the better to meet the waste of tissue resulting from training. This instinctive selection of suitable food is seen in the case of men who have to work hard, such as miners, navvies, and sailors. They can eat with benefit a proportion of animal food that would upset the digestion of less hard-working persons in a very short time. The craving of appetite, unless it be in a depraved or abnormal state, is almost always a safe indication that the food craved for would be beneficial. This is well seen in the case of a horse with inflammation of the liver, whose presence, when chronic, is most difficult to find out, except from the fact that, though the horse gets thin, he refuses corn and will only eat grass, carrots, and such food. This often induces owners to imagine that all the horse requires is to be fed up, and they accordingly resort to all sorts of expedients, such as giving him *musalaks*, tonic balls, &c., in order to make him eat corn, thereby only aggravating the disease.

With gross feeders it is perhaps best to give them their grass after their corn, but with shy feeders, it is always advisable to have both before them, so as to allow free choice which to eat. There are many horses that will consume a full amount of corn only when they have grass and water in the stall at the same time. Indeed, it appears to be the best plan with all, except very gross feeders, for by adopting it they will eat more corn, and certainly with greater relish, than when given by itself. At our own dinners we like to vary meat with vegetables and a drink now and then : and I know that a man in training would eat a larger amount of meat with *relish* (without which

a horse won't eat at all) by varying it as we do, than were he to eat meat first and vegetables afterwards. This parallel is I think pretty correct, for grain stands in the same relation to horses as meat does to mankind. The case of water does not apply so accurately, for the grain a horse eats is apt to swell in his stomach and produce colic or enteritis, if a large draught of water be taken immediately after a full meal. It was an old, but now exploded fallacy to think that, water taken before a meal weakened and diluted the gastric juice. Nothing of the sort occurs, for the water is almost immediately absorbed by the vessels of the cœcum and stomach and taken into the blood. After exercise this process is more rapid than at other times. A horse will take about 20 "godowns" to get through a gallon of water; and on an average will drink about 5 gallons a day when in work during the cold weather.

In concluding the subject of food, I may remark that the trainer's object should be to get his horses to eat as much corn as he can, without it upsetting their digestions, and in order to do this, their appetites must be kept fresh and healthy by judiciously preserving a sufficient variety in their food, so that they may not be disgusted by a never ending monotony. A handful of carrots, a bunch of lucern, of green freshly picked grass, or of young corn, a piece of sugar-cane, a linseed mash, anything in fact to keep their appetites from palling on corn; which is, after all, the source from which to obtain muscle, all other foods being but aids to its assimilation by their systems.

CHAPTER IV.

STABLE MANAGEMENT.

Stables—Bedding—Clothing—Bandages—Stable Gear and Saddlery.

STABLES should be on high ground, without trees about them, so that there may be as much free circulation of air as possible ; for in India we have to provide against heat and not against cold. The direction stables run in should be chosen to suit the prevailing winds. I have seen during the hot weather a Waler almost dying from the effects of heat in a stable situated in a low and confined position, recover his condition and health, in a very few days, after being removed to another on high and airy ground. In a stable the partitions between the stalls should be little more than six feet high, in fact, just enough to prevent the horses smelling each other over them, and at the head of each stall there should be a window, say two and a half feet square and about four and a half feet from the ground. These arrangements will allow the air to circulate freely, and as long as it does this, horses will suffer little during the hot season. We have all, no doubt, seen horses at that time, thrusting their noses through the air-holes or windows of their stalls, and remaining in this position for hours. It is not within the object of this book to give a detailed description of the manner of building stables, for this has been done scores of times by abler pens than mine. In this country experience proves that, the chief requisites for good stables are airy positions, thick roofs over head, lofty and spacious stalls and perfect circulation of air through them. As long as men or beasts are protected from the direct rays of the sun, and air blows freely through the habitation, whatever it may be, there is little

danger from heat. In a bungalow it is easy to shut up every door and window immediately the sun rises, and thereby keep the house cool and closed till late at night, when the fierce heat will have abated somewhat; but this is not practicable in stables, and even if done, I doubt its efficacy, unless punkahs were kept going inside, while outside thick *chhuppurs* and broad verandahs were present to prevent the rays of the sun from heating the interior of the building. If valuable horses be kept during the hot months in the plains, punkahs may be used with great advantage, but if they cannot be fixed conveniently and the horses feel the heat much, a couple of coolies should be told off to each animal to keep him cool with a large hand punkah. I have tried the experiment of keeping a valuable Waler in a room in my own house during the hot weather, but he suffered far more even under a punkah from the confined atmosphere inside, than he had done in his stable, which was many degrees hotter, but through which there was a free current of air.

During the season when flies are troublesome, *surkunda* chicks should be placed in front of the doorways of the stalls and bamboo chicks over their windows. The doorways of the stalls are usually barred across by two poles that are let into the walls at each side, the upper one being fixed about 4 feet from the ground. These bars are sometimes made to slide through boarded passages in the walls, which arrangement will prevent the latter becoming broken and worn away; but the best and neatest plan is, I think, to plant two upright posts, in which are bored holes for the reception of the horizontal poles, 10 or 11 inches from each side of the walls at the doorway; the walls will then not be liable to injury, nor will there be any occasion to remove the bars, unless when the horse is taken out, for there will

be quite sufficient room for a man to pass sideways between the walls and the upright posts. The bars are secured by being lashed together with a piece of rope.

No race horse, unless he be inclined to rub himself against the walls, from some cause or the other, should ever be tied up with head and heel ropes ; but should have a large loose box (at least 16 ft. by 12 ft.) to move about in. There is no excuse for having stalls too small in a country like India, where ground and labour are so cheap.

The best form for a racing stable, if an owner be inclined to build one on his own account, is one with two parallel rows of stalls facing each other and having a broad passage between, with corn and saddle rooms at the end of the stalls and the whole enclosed in one building, which by locked doors can be kept sacred from undesirable intrusion. This arrangement further prevents syces running in and out, as they are accustomed to do at unseasonable hours, thereby not allowing the horses the rest and sleep during the day which are indispensable for keeping their condition during training. In a corner of each stall, a tin lined trough or large earthen pan, called a *nand* should be placed about three feet from the ground for the corn. A nosebag should be used only with those that, as some few do, chuck the corn out of the trough when feeding, though this may be obviated better by employing a long broad box in which the grain will not lie thick enough to be thrown out.

In the Bengal Cavalry it is a common plan for preventing horses from throwing their corn out of their nose bags, to tie a string at the place where either end of the head strap is fixed to the bag, pass it round and knot it just above the knee of one of the horse's forelegs at such a length that he cannot chuck his head up, this plan may be of use when the horses are away from their regular stables.

Rice straw is best for bedding, as horses are less prone to eat it than that of any other kind of grain. If they be addicted to this habit, the straw may be damped and kept in the sun for a few days before using, so that it will become too sapless and unpalatable to be eaten in preference to grass, and a layer of the old bedding can be kept on the top.

I am convinced that it is most advisable to keep horses in training in loose boxes well partitioned off, so that they may not see each other during their hours of rest; and that the stable should be kept dark, which will prevent flies coming in and will encourage horses to lie down during the day.

If horses be kept in the plains during the hot weather they should be always picketted outside at night; this is best done by having a pole fixed in the ground for each horse, so as to allow him to walk round it, and plenty of bedding should be placed in a circle round each pole.

Though stables should at all times be kept cool, the horses themselves ought to be warmly clothed during the cold weather, which is the racing season out here. At night of course the windows or air-holes should be shut and anything like a draught prevented. What I want to impress is that, the necessary warmth which horses require in order to maintain a state of high condition, should be afforded by clothing and not by confined and heated air. Admiral Rous says: "In cold weather, add to the clothing, but never deprive them of the first great source of vitality 'fresh air.'" In my opinion, a horse in training should have nearly as much clothing as he can comfortably bear, without it causing him to perspire in his stable. And that will be about during the cold months. as I have found by practice, a suit of warm clothing during the day, with an extra rug at night, though by daytime the hood may be removed.

Country clothing is generally made with the breast and body pieces in one, which is a bad arrangement, as such clothing never sits properly, and horses that wear it, when walked out rub the hair off their shoulders, and look as if they had been in harness.

The hoods of warm clothing should be lined with cotton cloth (*dosootee*) which will prevent the manes getting rubbed by the woollen material. From an English pattern, one can get a suit of warm clothing made up from country blanketting, lined throughout with *dosootee* to strengthen it, for about Rs. 10.

Horses that have done much work will generally require the aid of bandages to keep their legs fine, and, unless in the case of actual disease or injury, dry flannel bandages will answer every purpose. Their uses are to encourage the insensible perspiration from the skin, which relieves the vessels underneath, to afford support to the back tendons and suspensary ligaments, and by pressure to aid in causing absorption, when there has been effusion of serum in the sheath of the tendons or inflammation of the synovial bursæ. These bandages should be made of close thick flannel and not of serge, about $2\frac{1}{2}$ yards long and $4\frac{1}{2}$ inches broad. A little practice will teach one how to put them on. When used in the stable, one should begin at the centre of the cannon-bone and go down to the fetlock, round which a couple of turns will make the bandage sit neatly, and then work up to a little below the knee, finally ending where one commenced. But when bandages are used for dicky legs during exercise, or in a race in order to give support, they should be simply rolled round the cannon-bone and back sinews, keeping them a couple of inches below the knee and above the fetlock joint, so as to avoid making any turns, that would render the bandage liable to slip down during the gallop. For this object the best I have seen are ones of the same form as, the

ordinary bandages, but of a material similar to the elastic used for boots; with them the pressure can be better regulated and more support given than with any other kind. Crape bandages answer extremely well.

Wet bandages are used either to produce cold by evaporation, or to act as a poultice and to keep up pressure at the same time. In the first case, it is best to use a single fold of thin cotton and to keep it constantly wet with water, or an "evaporating" lotion like the following one recommended by Stonehenge :—

Sal Ammoniac	...	...	1 ounce. •
Vinegar	...	...	4
Spirits of Wine	...	...	2 „
Tincture of Arnica	...	...	2 drachms.
Water	...	• • •	$\frac{1}{2}$ pint.

But unless one looks personally after the syces, it is difficult to make them attend to wetting the bandage; generally it is much the best plan to get a couple of "bheesties" (water-carriers) to keep up a fine jet of water on the injured part, for several hours, from their *mussucks* (water-bags), or if the horse be too fidgetty to bear this and a running stream be near, he can be made to stand in this up to his knees for a good part of each day.

When bandages are employed to act as a poultice and to give pressure on the suspensory ligaments or back sinews, the following will be found a useful plan for putting them on. Make a pad of four or five folds of soft cotton and large enough to wrap round in a double fold on each side of the leg; wet this pad thoroughly and apply it, then wrap over it a piece of oil-silk, and over both put on a flannel bandage moderately tight. In cases of strains the application may consist of either plain water, a lotion of 1 oz. Tincture of Arnica to a quart of water or three parts of water to one of "Neurasthenipponskelesterizo."

The gear and saddlery necessary for a small stable of five or six horses, and the approximate prices of the different articles will be as follows:—

	Rs.	As.	P.
Oat-bruising machine	65	0	0
Stone hand-mill	2	0	0
Weighing machine	20	0	0
Two wooden saddle horses	6	0	0
Balling iron	3	0	0
A pair of sweat scrapers	6	0	0
Bent trimming scissors and comb	5	0	0
Clipping machine	12	0	0
" Degcha " (pot) for heating water	10	0	0
" Degchee " for boiling linseed, etc.	4	0	0
Scales and weights for corn	4	0	0
A pair of leather buckets for fomenting horses' legs..	5	0	0
A pair of leather shoes for fomenting or poulticing horses' feet	3	0	0
Two training saddles (from 4 to 6lbs. each) ...	110	0	0
Two race ditto (from 2 to 3lbs. each) ...	140	0	0
Six earthen jars (<i>mutka</i>) holding about five maunds each for oats	5	0	0
Two lead cloths and lead	16	0	0
A suit of English made colours	30	0	0
Two pairs of light racing spurs	14	0	0
Two cutting whips	20	0	0

This will make a general total of ... Rs. 480 0 0

Each horse may have—

Suit of best Kersey clothing	40	0	0
Ditto country blanketting	10	0	0
English blanket	10	0	0
Country „	3	0	0
Cotton summer suit	5	0	0
Chamois leather	1	0	0
Three cotton rubbers	0	5	0
Hoof picker	0	4	0
Best English brush	3	0	0
Curry comb	0	12	0
Mane comb,	0	3	0
Four tápees	2	0	0
Bucket	1	8	0
Watering bridle	1	8	0
Setting muzzle	1	8	0
Snaffle bridle	10	0	0
Martingale	6	0	0
Numdah (English)	4	0	0

Total each horse ... Rs. 100 0 0

In broad numbers, it will cost Rs. 1,000 to set up a stable of five or six horses with gear and clothing complete. If money be no object, each horse may have a training saddle fitted accurately for himself, but any old saddles are good enough for walking exercise, and in India one hardly ever has a sufficient number of riding lads to send four or five horses together in their gallops. An owner may be well contented if he have two boys that can ride, in which case a couple of saddles will do. A small oat-bruising machine by Turner of Ipswich will be found to be one of the best; they can be got in Calcutta from Messrs. Thomson and Co., Esplanade Row. The best portable weighing machines are Salter's Spring balances, which weigh half-pound up to 200lbs. To use them, they should be hung up, and the person wishing to weigh himself, passes his leg up to the thigh through a stirrup leather and hangs that over the bottom hook of the balance.

The best sweat scrapers are about 2 feet 6 inches long, made of a piece of broad thin copper with wooden handles at each extremity. These are much handier and are not so liable to hurt a horse's skin, as those short, stiff, semicircular ones made with only one handle. At a pinch a long piece of thin split bamboo will serve very well as a scraper.

No stable should be without a couple of long narrow leather buckets for applying hot water to horses' legs; they should reach above the knee, be made of stout hide, and have strong wooden bottoms. A pair of shoes made on the same principle, but coming up only to the fetlock joint, should also be kept for poulticing the feet.

Oats can be kept sweet and free from the attacks of rats and mice in large earthen jars called *mutka*. They are very cheap and can be readily procured.

CHAPTER V.

STABLE MANAGEMENT.

Daily Routine—Grooming—Routine for evening work—Washing horses—Care of the Feet and Coat—Banging a horse's tail—Bots—Cracked Heels—Over-reaches—Surfeit—Mange—Cuts—Colic—Bursatee—Thrush.

DURING the training months, the syces should be up half an hour before daylight and give their horses one to one-and-a-half pound of corn ; this may be increased to two pounds if the owner intends keeping his horse out longer than usual, for instance when schooling a chaser, or if the race course be far away from the stable. We all know how agreeable and refreshing an effect a cup of tea and a slice of toast have on ourselves, and we should never deny a similar luxury to our horses before going out in the early morning. When this is eaten, the clothing worn at night should be taken off, the horses' coats wisped over and smoothened down with a towel, their manes and tails set straight, and fresh clothing put on, according to the weather. They are now taken to the race course and walked for a good hour, after which they get their work, fast or slow as the case may be. Immediately on being pulled up, they are trotted back to a stable or shed on the course, or if neither be at hand, then the lee of any favourable cover must be utilised. A careful syce should be at the place his horse is pulled up at, ready to throw a blanket over his loins and hind quarters, although the rider will not dismount until he reaches the rubbing down shed. The girths should now be slackened, and if the horse be worked in clothing, his hood should be quickly taken off, and his neck scraped with the copper scrapers for that purpose if there

be any sweat visible ; but above all things, the hollow between his jaws should be carefully dried with a towel ; neglect of this precaution has been the cause of many a sore throat and consequent roaring. His bridle should be changed for a common watering one, as horses are apt to spoil the reins by biting them when being groomed. One man should stand in front with a rein in each hand and hold the horse's head up, while a syce at each side rubs him down with a wisp of dry straw. If the horse be vicious and inclined to use his teeth freely, the syce holding the reins may have a stick or whip in one hand held across the horse's face, the sight of which will generally keep him in order. His breast piece is next removed, and the base of his neck and chest scraped and dried, and lastly his body clothing is taken off and his barrel, loins and quarters finished. Dry clothing is quickly put on, and he gets a bottle of water if he will drink from one, or if not, a couple of go downs from a bucket. Water, with some salt dissolved in it, will be more refreshing after work than if taken plain, for it will then directly supply the salt lost by perspiration. This rubbing down should not take more than five or six minutes, and after it he should be started at a walk without further delay home. Arrived at his stable, he may get half a bucket of water with or without "suttoo" as the owner sees fit : having drunk this, he is tied up, his clothing removed, and the grooming commenced. Though horses, on leaving the stables, should be ridden at a walk before their work commences,—as they will walk faster and less slovenly when ridden than when led,—they had better be led home, for then they'll arrive cooler and will not be so liable to break out in a sweat again. A horse may be tied up for his grooming by side reins, running from rings fixed about seven feet high at each side of the doorway of the stall, and attached to the rings of the snaffle

of the watering bridle. This will keep up his head and prevent him using his nippers on the syces.

If he kicks, I think it safer to attach, instead of heel-ropes, a pair of short hobbles (called in syce's parlance "mujuma"), about two feet long, to his hind pasterns. This will allow him to kick only straight behind him, in which there is little danger. But heel-ropes are very apt to strain a kicker.

The grooming is commenced by a syce at each side wisping him thoroughly over with a wisp of dry straw in each hand, beginning at his ears and finishing at his hind quarters. The wisp should be worked well into his coat backwards and forwards. This done his grooms should set to and hand-rub him, beginning as before at his ears and jowl and ending on his hind pasterns. I here insist on the absolute necessity of syces learning how to hand-rub properly, for in it lie nine-tenths of the virtue of good grooming and it cannot be done effectually without a liberal allowance of elbow grease.

When going over the horse, the stroke should be commenced by the flat of the hand (each one to be used alternately) being brought well under the belly, down the forehand or thigh or between the forelegs, as the case may be, and drawn up with a steady pressure: as the hand is raised the elbow should be turned out and the under part of the forearm brought into play against the grain of the coat. In this process the weight of the body, and strength of the arm should be utilised.

As labour is cheap in India, if one has a valuable horse, one may put four men on him to hand-rub, two on the neck and body, and two on the legs. The quicker this hand-rubbing is done the more effectual will it prove. I may here remark that if a horse's coat is long, more hair can be got off by not wisping him down at all after his gallop, but by proceeding immediately to hand-rub him; in this case the help

of four men is imperative, lest any one part of his body may be allowed to cool faster than another, and the syces should keep their hands damp with water, which will enable them to get more hair off.

When the neck, body, forearms, and thighs are well hand-rubbed, the brush and currycomb—the latter only to remove the dust from the former—should be used to smoothen the coat and free it from loose hair and dandriff. None but good English brushes should be used in a training stable, as the bristles of the native made ones are too weak and soft.

At the risk of being thought wedded to old Indian ideas, I most strongly recommend the horse owner to have his horses "tapeed" after being brushed down. I know this is never done at home and in only few stables out here, but I am quite certain that if the process were better known it would be far more widely employed. Horses become extremely fond of it, and even the most vicious, when they get accustomed to it, never bite or kick when it is being done. The "tapeeing" is simply a species of shampooing done with broad circular leather pads called "tapees." They are about eight or nine inches in diameter, three through the centre, and are stuffed with horse-hair. At the back of this pad, a strap passes to admit the flat of the hand. They are used by being placed one on each hand, and being brought down in quick succession, with the whole force of the arm, on the spot intended to be shampooed. The method generally used by good syces, is to strike first with the left, then with the right, again with the left, and then to bring them sharply together to knock out the dust. This process is difficult to describe on paper, and it takes some time to learn the proper swing. One should avoid using the "tapees" over the loins and flanks of a horse, but confine the shampooing to the neck, shoulders, and hind quarters.

This process being finished, the syce should take a damp sponge or towel, and wipe out the horse's nostrils, dock and sheath, and comb the mane, forelock, and tail, taking care to commence at the ends of the hair and proceed upwards as each kink or knot is opened out. The coat is then wiped down with a dry cotton or wash leather rubber, and the day stable clothing put on.

If flannel bandages are used they should have been taken off when the hand-rubbing commenced and are now replaced.

On returning from the morning's work in wet weather, and especially if the horse has been galloped through mud, it may be advisable to wash down his legs with warm water the first thing, and to put on flannel bandages, which should be taken off when the grooming is finished; the horse's legs should then be well hand-rubbed, and if he be accustomed to be bandaged, dry flannel ones should then be put on.

His feet are next looked to, and any dirt or gravel is carefully picked out. *Water should not be used to clean out the feet.* The picker, and occasionally a damp towel will be quite sufficient; when the latter is employed, the feet should be thoroughly dried with a dry one afterwards. Hoof ointment will be necessary if the feet are brittle from the dryness of the air and heat, or from the crust being rasped round in shoeing. Careless and ignorant shoeing smiths do this to make the foot look small, and what they think pretty. Among other evils the less dense and more porous fibres of the crust are exposed, and they readily split if exposed to the sun or become soft and spongy if attacked by damp. Nature protects the crust of the hoof from the effects of wet and heat by a natural varnish, and by the horn being hardest towards its surface. This varnish and dense portion of the crust, shoeing smiths are too fond of rasping away. But if the rasp

be never employed on the outside of the hoof—and there will be no necessity for doing so, if the smith fits the shoe to the foot and not the foot to the shoe—I hardly see what benefit ointment will be, unless the crust gets split or chipped, or be naturally weak and brittle. With a healthy natural foot, the application should be restricted to the sole, bars, and frogs.

The only good of washing horses' feet is simply to clean them, which can be done just as well without running the risk of the syces forgetting to dry them thoroughly afterwards. Saving trouble to the syces is hardly an object to be taken into consideration by the master, in comparison with the welfare of his horses. The effect of wet is to decompose horn, and if any lodges between the frog and heels or bars, or in the cleft of the frog, the latter will be liable to rot away. We don't want the sole and frog kept soft by wet or cowdung, but want them as hard as a stone, so that a horse may never flinch or go short on the very hard ground we generally have in India, or become lame if he casts a shoe. It is a significant fact that, the drier the climate is in which horses are bred, the stronger and better *able to stand work* will their feet be ; those of the Salt Range district (in the Punjab), where the rainfall is very trifling and the ground peculiarly hard and dry, are well known to possess extraordinary good feet, in fact seldom requiring shoes, even in that rocky country ; these horses, I need not say, never have their feet "stopped." Horses kept on marshy ground may have feet up to a *conventional* standard of excellence, but they will not stand work on hard ground, simply because damp has made them soft and weak.

Hoof ointment is powerless to hasten the growth of the hoof, which is secreted by the glands round the coronet, and only by stimulating the latter can this growth be increased.

The following is a recipe for hoof ointment very kindly given to me by Colonel C. L. Brown. It appears very similar to Hoplemuroma :—

Mutton fat ...	...	...	...	1 lb.
Beeswax ...	...	...	...	5 oz.
Fish or sperm oil ...	...	...	...	1 pint.
Gundabiroza (Venice turpentine) ...	...	...	...	2 lb.
Turpentine ...	...	...	...	5 oz.

Melt together the first three, add the Gundabiroza, and strain, then mix in the turpentine.

Only Stockholm tar should ever be used. Coal tar is frequently got from the bazar and employed instead ; it is very injurious to the feet, and when applied, may be easily known by its purplish blue appearance.

If expense be not an object, I recommend the horse owner to use " Hoplemuroma," which is the best hoof ointment I know.

A little neat's-foot oil applied to the outside of a horse's hoofs, before leaving the stable, will improve their appearance. Native butchers extract this oil.

Though I mention the subject of hoof ointment, I am not at all certain that, it would not better be dispensed with altogether. The Commanding Officer of a Bengal Cavalry Regiment, well known for the capital condition of its horses, gives me the following experience. During the whole of one hot weather *ghee* (clarified butter) was ordered to be applied to the troop horses' feet, in order, as it was supposed, to prevent them becoming brittle ; the result was that this practice had to be discontinued owing to the number of cases of sand-crack and shelly feet that were evidently brought on by it ; since then the horses' feet have regained and retained their former good condition, without the use of any hoof ointment.

The horse is now given the remainder of his water, and the syce tidies up the stable, lays down the bedding, mixes and prepares the corn, which is given ten or fifteen minutes after watering.

Giving a part of the water on coming back to the stable is quite a matter of taste, and indeed the whole of it is generally kept till after the grooming be finished. The former is, I think, the better plan. Unless the weather is very cold it is not advisable to warm the water. No one ever heard that a glass of cold water did a man any harm, unless he was very much heated by exertion, and horses are not more delicate than we are ourselves.

More than an hour after he comes in, and having eaten his corn, he gets his grass and should be left to himself to lie down and rest as he chooses, till twelve or half past, at which time he is usually groomed for half an hour, though this may perhaps be dispensed with; he is then fed and left to repose till four or half-past four o'clock according to the season. At that time he is again watered, groomed, and taken out for an hour or an hour and a half's walk; on returning at six or half-past, he is fed, clothed for the night, the bedding, &c., put in order, and is left to enjoy his well-earned repose. The evening feed should be a slightly larger one than that of the morning or midday.

During the day the stables should be darkened and all noise and talking in its vicinity prevented.

Horses should always have plenty of clean dry bedding down by day as well as by night, in order to induce them to lie down. For the more a horse does so by day as well as by night, the longer will his legs stand work. If bedding be not under a horse, he will often abstain from staling much longer than he ought to do, which fact is well known to all careful stablemen. Most of us old Indians know that, the coolest thing to lie down on during the hot weather is a straw mat, expressively called by the natives a "seetul patee," *i.e.*, cold mat. While the horse is out at exercise morning and evening, the

bedding should be removed, and dry straw substituted for any that may be damp.

When a horse is galloped in the evening instead of the morning, the same routine should be observed except that, the afternoon's grooming should be commenced half an hour earlier and only a couple of go-downs of water given before it; when taken out he should have, at the very least, an hour's walking exercise before his work, and on being brought back to his stable he should get a full allowance of water. He is then groomed and rubbed down in the same manner, as he would have been had he been galloped in the morning.

The trainer should study the peculiarities of each of his horses, regarding the manner they feed, and treat them accordingly, for some will eat most and thrive best by being allowed to nibble at their corn all day long, alternating between it and their grass and water; such horses should have their corn given quite dry; while others will eat heartily only by being frequently fed in small quantities; indeed many delicate feeders will require to be coaxed to eat by being fed from the hand after they have got through only a part of their proper allowance.

I may here allude to the very common practice among syces of washing horses, either wholly or in part. I certainly think that during the training season, if not absolutely injurious, it is at best but a slovenly way of saving trouble to the syces in grooming, that a horse may catch cold by it, and that his coat will never look as well as if the cleanliness and polish had proceeded from elbow grease alone. By the friction employed in good grooming, a fine oil is secreted by the pores of the skin, which gives the coat the peculiar gloss, that all lovers of the horse like to see; and water, especially if soap be used, tends undoubtedly to remove this very oil, which is given by nature to protect the skin from both cold and heat:

for the more polished a surface is the less heat will be radiated from it, and the more reflected. Besides this, I strongly suspect that the more polished the coat is the less will a horse be effected by perspiration cooling on him.

The only exception I should make would be to wash the horse's muzzle, eyes, dock and sheath daily, and the mane and tail once a week with soap and warm water, which appears to increase the growth of the hair on these parts.

If a horse be inclined to rub his tail against the walls of the stable, his tail should be washed every day and a light leather case may be neatly fitted on and laced over the part which he rubs.

It is the fashion not to cut Arabs' tails, but if they grow longer than the owner desires, they may be thinned by taking the longest locks, and twisting the end round the finger, or a stick, and then pulling them out. By taking a little at a time, no inconvenience will be felt by the horse, and the tail may be made any length desired. A thin tail is a mark of high caste in an Arab; while the hair of both mane and tail should be very fine and silky.

Horses' tails ought not to be banged after the beginning of April as they will want them long to keep off the flies during the rains; the 1st of October will be soon enough to trim them again.

In the same manner, the mane should be trimmed and made level. The scissors should never touch this part of any horse. The mane ought to hang on the off side. If it does not hang properly down, it should be wetted, plaited, and small weights attached to the ends. The reason for the mane being on the off side is that, we generally look at a horse from the near side, and his graceful contour and the slope of his shoulders, come out to most advantage when the lines are not broken by the mane.

Country-breds may be left with either a switch or bang tail, according as they show more or less of an Arab cross.

A capital method of banging a horse's tail is as follows. Lay it at the desired length across the edge of a broad adze (Hind. Busoola), and by a smart blow with a flat billet of wood divide the hair. The adze should be held steady, with the handle to the rear; the edge should be kept horizontal and the blade sloped, so that the horse at a walk may carry his tail level; there will be then nothing to do further but to trim any loose hairs with a scissors. This is an admirable plan for regiments of cavalry or batteries of artillery where dispatch and uniformity are matters of consideration. For a number of horses a blade, resembling that of an adze, but broader, may be let into a block of wood 4 or 5lbs. in weight.

Any race horse that carries a long coat should be clipped or singed during the cold weather; the effect of this on his subsequent condition will be very apparent. Generally speaking, strong hand-rubbing immediately after the morning gallops will be sufficient to keep the coat short.

During the autumn months, the botfly is very apt to lay its eggs on the chest and forelegs of horses. These eggs adhere to the hair, but though very minute, they may be readily recognised by their bright yellow colour and by their position on the horse's coat, for this position is chosen by the fly, so that the horse may readily lick them off, and in this manner convey them to his stomach. During these months, syces should be most careful to examine their horses after they come in from exercise, and pick off every one of these eggs which they may detect.

Cracked heels are a great nuisance to a trainer, and some horses (especially those with white pasterns) are so liable to get them, that even though

their feet may never be touched with water, still their heels will become sore during the cold weather from the effects of the heavy dew on the ground in the early mornings ; such horses, and those whose heels are only slightly sore, should have a little of the following ointment rubbed into the back of their pasterns half an hour before leaving their stables, namely, equal parts of fresh butter, wax and spermaceti ; this is much better than glycerine, which will get washed off by the dew that lies on the ground in the early mornings. If the heels be already chapped, one part of carbolic acid to eight parts of glycerine may be used in the stable, while the heels should be washed with soap and warm water twice a day, well dried and the application put on immediately afterwards. To reduce any heat and inflammation that may be present, there is nothing so good as a poultice of boiled carrots, while a couple of days' bran mashing, with a drachm of Tartar Emetic mixed in the mash morning and evening, will materially assist the cure.

Tincture of Myrrh is one of the best applications for an over-reach ; Stonehenge recommends Tincture of Arnica. No water should be used and any jagged ends present should be carefully trimmed, lest the fluid resulting from their decomposition may irritate the wound.

At the commencement of the rains horses often get a slight attack of surfeit : I have found the following to be a certain cure for it. Stop the horse's corn and give him only bran mashes, in which mix morning and evening a drachm of Tartar Emetic ; have his grass dried in the sun, and give him plenty of exercise.

Kerosine-oil appears to be a specific for mange ; it should be rubbed into the affected part two or three times a day, and the horse should stand exposed to the sun while the oil is drying.

I would advise that glycerine should not be used in applications for cuts during the rains, as it is soluble in water ; but would prefer simple Friar's Balsam, or an ointment made of equal parts of mutton fat and Venice turpentine melted and strained, which is very similar in its effects to Holloway's Ointment. This recipé was kindly furnished to me by Colonel C. L. Brown, and also another for colic, as prescribed by the late Colonel Roberts:—

Saltpetre	(Shora)	...	...	3 drachms.
Assafetida	(Heeng)	...	...	2 "
Opium	(Afeem)	...	...	1 "

Make into one ball.

All the ingredients of this recipé can be obtained in any bazar.

It may not be out of place here if I recommend 2 drachms of camphor dissolved in a glass of spirit as a remedy for suppression of urine induced by chill or over-exertion. This is an old and well tried Indian recipé. Camphor is readily obtainable.

At the suggestion of one of our best and most respected authorities on racing in India, I most strongly recommend the treatment of *Bursattee* advocated by the late Brigadier-General Ryves, a full account of which is given in the last edition of his "Veterinary Aide Memoire."

The best application for Thrush is Calomel, which should be pressed into the diseased part. The foot during treatment should be kept dry and clean ; while, if possible, the crust and heels should be lowered, or the shoes taken off, so as to give pressure on the frog and thereby stimulate it to secrete healthy horn.

CHAPTER VI.

SADDLERY.

Rules for curbs—Pelhams—Lipstraps—Snaffles—Nosebands—Martingales—Borers—Watering Bridles—Saddles—Numdahs—Hints about Stirrup leathers—Girths.

THERE is a great deal of truth in the old remark, that “if a horse cannot be held in a snaffle, no other bit will hold him.” A curb will often madden a free-goer, that would bend his neck and give and take with a snaffle, though inexperienced men often imagine, that the former is indispensable in order to hold an impetuous horse, because with the latter they cannot readily pull him out of his stride, or stop him. We want neither of these two things in either a training gallop or race, but what we *do* require, is to have power sufficient to steady a horse in his stride and regulate his pace, though we need not aim at bringing it to the style of canter desirable in a park hack. Almost the only horses that require a curb, are those hard-mouthed brutes that bore and hang on one’s arms, as if they thought that a rider simply got up to relieve them of the trouble of holding up their heads.

The proper use of a curb is to increase the rider’s power of *restraining* his horse, and to accomplish this, pressure must be put on the bars of the mouth, or on the tongue also, if less restraint be required; but if this pressure be transferred to the horse’s chin (by a severe curb chain), or to his palate (by a high port), he will be simply hurt, and no more restrained than he would be by a cut of the whip or a dig of the spurs, because the force that inflicts pain is applied in the direction the horse is proceeding. We all know that many horses will stop if punished by whip or spur during a race, and so will others, if punished by the port or curb chain

of a bit, simply because they get *cowed* and refuse "to travel under punishment."

The use of the port is to allow the tongue to escape from a certain amount of pressure, which is then transferred to the bars of the mouth, the latter being the more sensitive part of the two.

I may detail the means of restraint with a curb as follows :—

1. To lessen the diameter of the mouthpiece, so that it may press more severely on the bars.

2. To use a tight noseband, which will not allow the horse to shift the position of the mouthpiece.

3. To use a port high enough to prevent the tongue taking pressure intended for the bars, without it, by any possibility hurting or even touching the palate.

4. To lengthen the lower arms of the cheeks, while the length of the upper ones remain unaltered.

I have condensed the following rules from Major Dwyer's admirable book "*Seats and Saddles*":—

1. The width of the mouthpiece should accurately correspond with that of the horse's mouth, so that it may not pinch the lips by being too tight, nor slip from one side to the other by being too loose.

2. The bit should be placed in the mouth, so that its mouthpiece may be directly opposite the chin groove, in which the curb chain should lie.

3. The upper arms of the cheek of the bit, measured from the axis of the mouthpiece to the point where the curb hook acts, should be about $1\frac{3}{4}$ inches,* namely, the usual thickness of the jaw between the bars of the mouth—on which the mouthpiece presses—and the chin groove; but if the upper part of the cheek be longer than this measurement, the curb chain—when used—will hurt the sharp edge of the bone of the lower jaw; while, if shorter, the curb will fail to act, by the cheeks tending to come into a line with the reins, on the latter being pulled.

* NOTE.—In this country, I found $1\frac{1}{2}$ inches to be the best length for well bred Walers. a

4. The port should be low—never more than $1\frac{1}{2}$ inches,—so that, by no possibility, it may touch the roof of the mouth; and its width should never exceed $1\frac{1}{2}$ inches, which will just allow the tongue to escape pressure.

The rule, as Major Dwyer points out, of placing the mouthpiece 1 inch above the tushes is faulty, as their position varies in different horses; besides that this empirical rule is one without any reference to the anatomy of the horse's mouth, or the mechanical action of the curb.

English bits are generally much too wide for Arabs and Country-breds. Major Dwyer gives 4 inches as the usual width for European horses. If a bit with too broad a mouthpiece be used, one cheek will almost invariably be found to press close against that side of the horse's mouth, while the other will stick out clear of the opposite one; the natural result being an unequal "feeling; and the cause, the desire horses have of shifting the pressure on to the tongue."

Before putting a bit and bradoon in a horse's mouth, the latter should be placed over the former. The action of the Pelham as a curb appears to me to be very faulty; for when its bit reins are pulled, the cheeks jam against the sides of the mouth on account of the joint in the centre of the mouthpiece, whose width, instead of exactly corresponding to that of the horse's mouth, varies at every touch of the rider's hands on the reins. Pelhams have the reputation of making horses bore, probably, I think, because the pull on the reins is, by the action of the joint, partly taken by the bridle cheeks and transmitted by them to the poll of the horse's head; in fact producing the same action that takes place when an ordinary curb is used, of which the upper arms of the cheeks are too long.

The possibility of the pull of the reins being

taken by the headstall may be obviated, by attaching it to the bit by steel snap springs, which run far freer in the eyes of the cheeks of the bit than billets do : or better still, as I have had it kindly pointed out to me, by connecting these snap springs to the eyes of the cheeks of the bit by a small steel ring. This arrangement is similar in principle, though without the unsightliness of Lord Thurlow's bit, which differed from the ordinary one by having the eyes of the cheeks formed in the shape of a flat oval to the rear.

Syces are very much addicted to buckling the throatlashes too tight. They should be always loose, so as not to put the slightest pressure on the wind-pipe, which will naturally become more swelled out during the gallop than when the horse is standing still while the bridle is being put on. With a bit and bridle one should never forget to use a lip strap, for without it a horse may at any moment when galloping, chuck up his head and reverse the position of the cheeks of the bit, this will deprive the rider of proper control over him, until he brings his head down again, and then the cheeks of the bit will fall back into their usual position ; besides this, many horses shave a trick of catching the cheek on one side with their lip and then boring down on the rider's hands, which they could not manage with a lip strap on.

A curb almost invariably makes a horse "go round" in his gallop, and even when the bridle only of a bit and bridle are used, a horse will rarely "go up to his bridle" as well as if the snaffle only were present in his mouth ; for most horses on feeling the bit will fear being suddenly checked by it at any moment. If a plain ordinary snaffle be found not to be severe enough, a thin racing twisted one, a double ringed snaffle, or a chain snaffle should be tried : horses generally go well in the two latter, and they are both most useful for horses that are inclined to bore on one side. I have found very

light mouthed ones go best in a chain snaffle covered with chamois leather and nothing can be easier to the mouth than this.

The double-mouthed snaffle is a most powerful bit with a hard mouthed horse.

Before adopting a curb every kind of snaffle should be used and the former resorted to only as a last resource.

An ordinary noseband buckled tight, will considerably increase the power of either curb or snaffle.

The neatest arrangement for the noseband of a snaffle bridle is, to give it a separate headpiece, similar to the "bridoon head" in a double bridle; its position can then be altered as required.

If a horse be a stargazer, the martingale should be shortened so as to give the direct pull of the reins in a line a little, say three inches, below the top of the withers. But with horses that keep their heads sufficiently down, the martingale should be used only to keep them straight and to prevent the horse from yawning about, by doing which he will be liable to change his leg and go uncollectedly. Herein lies the great excellence of the martingale, and in this case, it should be long enough not to interfere with the horse raising or lowering his head, for if that happened, it might cramp his action to be suddenly checked every now and then, while the hands alone ought to be quite sufficient to enable the rider to give and take with the play of the horse's head. A young horse, until he has learned to gallop in form, will require a martingale, and indeed, I would recommend one always to be used, but lengthened out as I have mentioned; for at the starting post or during a race, it is often of great use in pulling up and turning round at a false start, "getting through a crowd," enabling a jockey to steady a tired horse, or to catch a firmer hold of his head. If a martingale is to be employed in a

race, the horse should most certainly be accustomed to its use during his training gallops. I may here remark that a horse should invariably be run in the bit and bridle in which he has been trained, and I may add in his training saddle also, provided it be the proper weight.

One should always be careful to have running stops on the reins, that pass through the rings of the martingale, for accidents may happen in their absence, by these rings getting caught on the buckles, which attach the reins to the snaffle; if stops be not present, this may be prevented by half or wholly withdrawing the ends of the straps (called "billets" by saddlers) that have passed through the buckles, out of the keepers that hold them down; these straps will then bulge out and thus prevent the rings of the martingale from going forward and catching on the buckles of the reins. If the reins be sewn to the rings of the snaffle, there will be no need of stops.

Nearly the full effect of a martingale for keeping a horse's head straight may be obtained by simply passing the reins through two rings attached together by a strap, or even through one ring alone. This arrangement is sometimes called an Irish martingale; with a stargazer it would of course be less efficient. It is the safest kind across a country.

In steeplechasing one often has to sacrifice the action of a horse a little, for obtaining perfect command over him at any moment, in the event of an accident or crush, and for being able to collect him at his fences. For these reasons a bit and bridoon are less objectionable across country than on the flat.

It is a capital plan for preventing a horse from boring to one side with a snaffle, to pass a strap through its ring on the other side and the throat lash, and then to tighten the strap as the action of the horse may require. The pressure this arrangement puts on the side of the mouth opposite to which he

bores, will generally make him go with an even feeling on both reins.

When a horse carries his head too low down in galloping, the snaffle (whether with bit and bridoon or snaffle alone) should be fixed higher than usual by shortening the cheek pieces of the headstall of the bridle; the bearing on the corners of his mouth, will then make him hold his head up, and this can be generally regulated, so that he will carry it in proper position. In fine hands, a gag snaffle will answer the same purpose. This is a double reined snaffle, one rein being attached in the ordinary manner, while the other is a continuation of the cheek pieces of the headstall, that pass downwards through holes in the rings of the snaffle (instead of being buckled to them) and from thence to the rider's hands; the part that passes through these holes is rounded, like what we see in the bridle for a lady's horse, with stops above and below to prevent too much play. When the gag reins are pulled, the bit is forced against the corners of the horse's mouth, and in order to ease this pressure he raises his head. By dividing these two reins properly in the hands, just sufficient pressure on the gag can be applied to keep the horse's head in position.

The following most useful modification of the Bucephalus noseband was lately shewn to me by a Colonel in the Royal Artillery well known for his knowledge and experience in equine matters. With an ordinary snaffle pass a long flat curb chain or leather strap across a horse's nose, and attach the ends to the ends to the rings of the snaffle, so that the chain or strap may not shift down over the nostrils.

I need hardly impress the necessity of having horses properly bitted, and of the fact that different kinds of bits suit different horses. I am using here the word "bit" as a general term, applying equally

to curb or snaffle. The horse owner should not rest until he has found out in what particular bits each of his nags go best.

The rule for the position of the bridoon is that, it should be just low enough to avoid wrinkling the corners of the mouth.

A bridle—usually called a Tattersall's watering bridle—with a circular mouthpiece, should be used when a syce leads a horse out for a walk, for such a bit will give an even pressure on both corners of the mouth, whatever may be the direction in which the leading rein be pulled.

Boyce and Rogers of Newmarket are undoubtedly the best makers of racing saddles in England; the chief point to be considered in these saddles is, that they should be long and roomy as well as light. A $2\frac{1}{2}$ or 3 lbs. saddle, all complete with irons, webs, girth and surcingle, ought not to be less than 15 in. in length, and if one of that weight be much shorter than this, its workmanship will be found to be inferior, for strength will have been gained by quantity and not by quality of material.

The most *comfortable* racing saddle I have ever seen was one belonging to the owner of that celebrated Waler colt, Kingcraft. It was covered with fine light doeskin, which made one's seat firmer in it than in an ordinary hunting saddle. A good rider of course does not *require* a saddle covered with doeskin in order to *remain*, but it is very comfortable and gives a rider additional power when on a puller. Jockeys who have ridden in this saddle prefer it to the ordinary kind.

I do not like these cheap machine-made saddles. They are as unmistakable in their appearance as a Cawnpore made one, having inferior pigskin with long coarse stitches, and as a rule they are made to fit the horses' back by extra stuffing in the pannel, and not by the proper shape of the tree. When

sewing in leather, different pressures have to be applied to the thread (for the substance in each hide varies, and is not uniform as in cloth) in order to obtain a uniform strength in the stitches throughout, which can only be got when the sewing is done by hand and not by machine.

Leaded saddles are made of various weights in England and are very useful when dead weight has to be put up, or for trials, when an owner does not desire his jockeys to know more than he can help. For carrying weight one should have a large roomy saddle cloth capable of containing 21 lbs. at least, and care should be taken that the leads are soft and thin enough to bend to the horses' ribs when put on. It is a great mistake to use two small lead cloths, when one large one will suffice, for the closer the rider's knees are to his horse's sides, the less will the saddle wobble, and the more power will he have over his mount.

A saddle cloth should be placed well forward and the lead equally divided on both sides. If the leads be covered with chamois leather there will be less chance of their shaking out or dropping by accident. A saddle cloth should be provided with straps and buckles to secure the leads.

Most horses, with a light racing saddle on, will require something under the pommel to prevent the gullet plate from pressing on the withers. This is best done by a pad formed of two pieces of doubled numdah about four inches broad and seven inches long, kept about three inches apart by either a thin woollen or cotton cloth, that will look neater, if it also covers the pieces of numdah, which, when the saddle is on, will lie on each side of the withers and protect them from pressure.

Before girthing up a saddle, if a numdah or saddle cloth be used, the groom should with his finger bring the front part of either of them, as the case may be, well up into the arch of the gullet, in order

to prevent the cloth getting pressed down on the horse's withers.

A numdah's only uses are to save a horse's back in the case of an ill-fitting saddle, and to preserve the pannel from being soiled and worn. Its fault when thick is that, it raises the saddle too much off the horse's back, thereby giving play between the horse and the rider, who will be unable to sit as steadily and conform as accurately to the movements of his mount, as had the connection between them been unyielding. A rider should be one with his horse, and he cannot be so if the saddle moves on its own account.

In race riding, and especially across country, the saddle should fit as close as possible to the horse without pressing on his backbone, and the horseman should avoid allowing play to the saddle by unnecessary stuffing and numdahs.

One should avoid tight girthing, and try to hit off the happy medium between the girths being so loose as to allow of the chance of the saddle slipping, and so tight that it would interfere with the horses' breathing; to lessen the possibility of the latter contingency, the girths should be placed well back from under the horse's elbows.

For a race the position of the saddle should be such, that it should just escape interfering with the play of the horse's shoulder blade and no more. But in a training gallop it should be put well back so as to lessen the strain on the fore legs, which are usually a horse's weakest point.

The usual faults in saddles are, that the points of the trees are too far apart and the arch of the gullet plate too flat. When these conditions exist, stuffing must be put in the front part of the pannel, to keep the gullet plate off the horse's withers. The saddles we use, are generally made after a pattern suitable to English horses, that are thicker between

the rider's knees, than they are out here, and consequently the points of the trees are made further apart.

Before getting a saddle stuffed one should have the wool or hair, intended for use, carefully weighed into two equal portions, one for the near the other for the off side of the pannel. For an ordinary hunting saddle the stuffing may be divided and weighed into six parts, namely, for the front and rear of the pannel and for the flaps.

Stirrup leathers almost invariably break at the hole through which the tongue of the buckle passes. The part, where these holes are punched, may with great advantage be strengthened by having a strap, the same breadth as the stirrup leather, sewn over it where the holes are.

For steeplechasing stirrup leathers should be always used, but webs never, for these latter are very liable to break. When riding across country it is much the safest plan to use only saddles that have locks for the stirrup leathers, and to further diminish the possibility of the rider's foot getting caught in the stirrup, these locks should be left open, or at least well oiled before mounting; and also it is a hint worth recollecting that, for steeplechasing the heels of one's top boots should be moderately high to prevent the chance of the foot slipping through the stirrup in the event of a fall. This is a most dangerous accident, and is not an unfrequent one.

A stirrup leather looks neatest, when the loose end is passed in front and under the part immediately beneath the spring bar, and brought back under the rider's thigh, behind which it is kept in its place by a leather keeper.

The following is a very useful hint I got from John Wheal, which he learned from the celebrated steeplechase rider, George Stevens. Before mounting for cross country work, lay hold of the stirrup iron, after having drawn it down to

the end of the leather (in the usual position) and turn it round in the direction that the hands of a clock proceed if on the near side, and in the opposite way if on the off side, until the leather becomes thoroughly twisted, then pull the stirrup iron hard down and let it go; on regaining their usual position, the leathers will have received a twist that will keep the irons at right angles to the sides of the horse, and in case of a fall, this will almost nullify the chance of the rider's foot getting caught, while if it comes out of the stirrup by accident in a race, the iron can be quickly picked up again, for it will be in the natural position for the foot to take it.

Before a race it is dangerous to put on girths that have never been used, as they stretch very considerably, and may allow the saddle to turn round.

Most people know the old plan of shortening a girth for the time being (when it cannot be taken up any further,) by making a fold of the webbing near one end, passing the tongue of the buckle through it, and then attaching this buckle to one of the girth tugs. The horse is then girthed up from the other side, for the fold of webbing would draw out were the buckle retaining it opened. This should only be a temporary measure, as it is apt to tear the webbing.

Before dismissing the subject of gear, I hope to be excused if I endeavour to impress the necessity of having good tackle and putting it on properly.

CHAPTER VII.

TRAINING.

Treatment during the hot weather—Time for commencing Training—Racing Fixtures—Deyrah Doon—Remarks on the manner horses stand training—Maidens—General Rules to be observed. On horses becoming stale—Distance of training gallops—A five or six months' preparation—Physic—Preparatory work—First Preparation—Weekly Routine—Speed of gallops—Sweating—Second Preparation—Rogues—Peculiarities of different horses—Training for short races—Trials—A two or three months' preparation—Signs of condition.

BEFORE going on the galloping track, I would wish to remind the young turfite that, more depends on a horse's treatment inside the stable than outside it, and that the state of his stomach is quite as important, as is that of his legs and pipes. Scores of horses have been got extremely fit and well, and have won good races, without having been galloped once on a race course during their preparation, which has consisted simply of ordinary hacking about, with perhaps now and then a canter on a soft bit by the road side, or even of nothing more than work in a very light trap, when the legs have been particularly infirm. But I greatly doubt whether a horse has been ever brought within two stone of his proper form, when his stable management has been neglected.

As frost stops training at home, so does the hot weather out here. During the months of April, May and June, in fact till the rains commence, the trainer, if he be in the plains, should not think of working his horses, for the climate of itself will produce quite enough strain on their constitutions. Through these slack months, any injuries that the horse's feet and legs may have sustained during the previous season's training should be treated and

got right. On this subject I wish only to remark that time and rest are the only true remedies for disordered tendon and ligament, which are the causes of nine-tenths of the race horse's infirmities : and that nothing under three months will suffice to enable even the sheath of a tendon, that has become filled, to get fine again and recover its tone : while it takes quite six months' rest for a horse to get over even a slight sprain of the back sinews or suspensory ligaments. Many horse owners display fatal ignorance in treating such an accident. They often imagine that a blister or charge is all that is needed, and that the moment the skin has healed or the charge dropped off, the wretched horse is fit for slow work, after having given him, say, three weeks' rest. A blister, charge or firing, but hasten the reparative action of nature, which, though nothing external may be visible, goes on about the seat of the injury for months ; and until this action be completed, any strain on the affected limb will certainly cause a return of the original mischief.

During the hot weather, horses should get a less quantity of food than when in training, but it is the greatest mistake to keep them at all low ; on the contrary, they should be liberally fed, the better to resist the weakening effects of the climate. It is not from theory, but from what I have seen in practice, that I speak most positively on this subject. An Arab may get five and a Waler six seers of corn, including a seer of bran, and twice a week at night a bran and linseed mash, or a feed of boiled barley every night, mixed with half a seer of bran. We have discussed the merits of oats, gram and barley already, and need not re-open the subject here. Suffice it to say, that the total amount given may be about what has been stated, though the proportions of the different grains may be varied as I have shown. One great point to be looked to is that,

the dung should be properly formed (though many horses, that have been trained for some seasons, always dung abnormally loose), brittle, devoid of all stickiness, and of a healthy yellow colour. When oats are used, the dung is always much more yellow than with any other grain. A dark dull brown colour shows that the horse is out of health, and if green, that he eats more grass than corn, which probably his syce steals.

During the hot weather, the horses should have an hour and a half's walking exercise in the morning, and a little less in the evening. It is always the best plan to have horses ridden at walking exercise and not led; most syces can ride well enough for this. Horses should be always made to walk smartly, and nothing looks slacker or causes a horse to walk more slovenly, than the manner syces often lead horses, with a long leading rein over their shoulder, while they hobble along at about two miles an hour at the outside.

The worst of the hot weather is over by the beginning of July, and from that date horses may be put into slow work. Before this, the owner should have made up his mind as to what he intends doing with his horses during the ensuing season, whether to run them early in October at Deyrah Doon, to wait for some particular meeting later on, or to commence at Deyrah with his horses partly fit, and gradually gallop them into condition, as they work down country from one meeting to another. The latter is the usual line taken, as the different meetings are fixed to suit this arrangement, and by the time Calcutta is reached in due course, the horses will have had nearly six months' work, and ought by that time to be as fit as possible. The legitimate racing season on this side of India commences with the Deyrah Doon meeting in the beginning of October; immediately after that the Umballa one comes off

then those of Meerut, Sonapore (which is a moveable feast), and Calcutta at the end of December. After that come Lucknow, Meerut, and Umballa spring meetings. This is the usual programme, with the smaller ones such as Dacca, Cawnpore, Muzufferpore, &c., fixed so as to suit the larger ones.

The race-course at Deyrah Doon is a hilly one, and it takes time to "get the hill into a horse" as all frequenters of that lovely valley know well. An instance of this was strikingly shown by the moderate Malabar, who trained on that course for two seasons, won the Deyrah Derby very easily with a good field behind him. Deyrah has the great advantage of a good climate, in which to train horses during the beginning of the training season, but it is a dangerous one for horses with not the best of forelegs, as the course is often very slippery going down the hill on the far side. However, if an owner intends running his horses at Deyrah, he ought to give them at least a month's work there.

The Deyrah course suits horses with high action, which enables them to climb the hill far easier than those that go lower. Another point to be considered is that, a horse must have good hocks to go up a hill well.

Undoubtedly, the best thing to do with valuable horses is to send them at the close of the racing season (the end of March) to Deyrah Doon, where, after a month or six weeks' rest, they may be hacked about with a light weight up, and got into good working order, before being put into regular training. In this way they will be far healthier and fresher than had they remained in the plains. In point of fact, horses can be galloped much earlier in the plains than at Deyrah, for the course there becomes very hard in the hot weather, and during the rains it is anything but safe going, until after August, and is very dangerous for youngsters that are apt to sprawl about.

As work cannot be commenced with any safety before July, the trainer, if he wishes to run his horses early in October, will be obliged to hasten their preparation by physic and sweating, which only in rare cases would be necessary were another month's training allowed. They are but means to hasten condition, and are in no case necessities were more time given. Of course I take for granted that a horse should be in good health and free from disease of any sort, before being put into work. In one case the preparation will take about five months, in the other three, and it would be quite hopeless to attempt to train a horse properly in a less period than the latter, immediately after the hot weather. Were a stout, well-bred horse put into training during the cold weather, with good hacking condition to start on, two months might be enough to get him fairly fit, though had he not been previously taught to gallop, that would be too short a time for him to learn to extend himself, and go in proper form.

Before discussing the routine of training, a few remarks on the material we have to work on, in this country, may not be out of place. It is an old turf maxim that, the better bred a horse is, the more training will he stand. In England this is fully recognised in the fact that "Cocktails," though the stain in their pedigree may be very slight, can stand nothing like the work that it takes to bring a thorough-bred into condition. Out here pedigree is an uncertain guide ; we have something definite to go on with a few of our first class Walers, though many of the latter that are on the turf, have either a "salt-water pedigree," or one that is far from being thorough-bred, except in the loose Colonial acceptation of the term. Not one man in a thousand can tell the marks of pure blood and high caste in an Arab. These sons of the desert are a mystery

to us, and many of the most unlikely shaped ones, in our eyes, often turn out the best. Our Country-breds are most mixed in their breed, and it is quite a fluke how they turn out, though the fluke is most frequently a losing hazard. With English horses in India, their capability of standing the climate is much more important than their particular strain of blood. But, with all this uncertainty, experience has established the fact that Arabs will bear more work than any other class, and that Country-breds will stand hardly more than half the work which Walers will require to get into condition. Another point about Arabs is that, they rarely come to their best until they are eight or nine years old, and have been raced for two or three seasons. One should never despair of an Arab if there be but half a chance of his turning out well.

Young Arabs, and indeed all young horses, may with great advantage be trained and taught to gallop, though without being brought to the post, the season before they are actually run. We generally find a horse that has been raced the first year he has been trained, to become in the next season from 10lbs. to 1st. better than he was during the preceding one. In India horses are often run the first year they are put to work, and even receiving as maidens from 7lbs. to 1st. such horse can rarely successfully contend with platers, simply because they have not had time to learn their business. We seldom see maidens that have been run thus, come out in anything like their subsequent form, until perhaps towards the end of the season, say for Lucknow, or for some of the other spring meetings; and then when they are at their best, it is a pity to lose their maiden, if they have not done so before that. In England a young one can be kept at work for six months, before he runs for the first two or three year

old events, but out here the hot weather allows but little more than three months during which to prepare a maiden, without suffering many of the best maiden stakes—that take the place of two and three years old races—to pass by uncontended for; while time is more essential to teach a horse to gallop, than to actually bring him into condition.

I have seen it remarked in *The Field* that, it takes quite two years' condition to enable a horse to live among the first flight in "the shires," and certainly it would require little less time to bring a young one—probably fresh off the ship—fit to race over a distance out here. This consideration and the fact that small compact horses mature earlier than those of a larger and looser frame, should be carefully weighed by an owner before running a young one.

Old horses require less *work* to get into galloping condition than young ones do, as fat is not so quickly deposited in their systems, though they require more *time* to put up muscle.

I have previously alluded to the fact that Arabs can stay a distance, and Country-breds, as a rule, cannot.

Before commencing galloping, I hope those of my readers that are inexperienced—for it is for such that I write—may take the following advice.

Before training a horse at all, put lots of muscle on him and get him into good health by quiet slow work and hacking.

If possible, only gallop in the morning, and let the horses get back early to their stables, not later than half-past eight in the cold weather. Never work them twice in a day however backward their condition may be. See that they get their one pound feed of corn the first thing in the morning, and do not gallop them till they have walked for at least an hour, and cleared themselves out.

When training for a Monsoon Meeting, it is often desirable to gallop one's horses in the evening instead of the morning, for flies, which are fearfully annoying during the rains, are much less so in the former than in the latter time.

Before sending a horse a-gallop, always look at his legs and feet, and if there be anything wrong, or the slightest heat present, send him back to his stable. As a rule, unless a horse goes actually lame, a syce will never inform his master that there is anything wrong.

Give a horse always a preliminary canter before sending him a sharp gallop.

The heavier topped a horse is, and especially if he have a thick neck and loaded shoulders, the more careful should the trainer be about giving him fast work.

Do not keep horses too long on hard food, and never be afraid of giving them a bunch of lucern, or a few carrots.

If a horse in strong work begins to leave much of his corn untouched, say, anything over half a pound at each feed, the chances are that he is getting too much work, which should be lessened or altogether stopped, as the case may require, and he should have two or three bran mashes, some green meat, or even an alterative ball, if he be at all overworked. The time a horse takes to eat his allowance of corn may be used as a measure of his appetite. Thus, say that a certain horse, who after work usually consumes his morning feed of 4lbs. in 25 minutes, takes on a particular day half an hour to get through the same amount, the owner may reasonably conclude that his horse is a little off his feed. By observing such indications in time, the chances of overworking a horse will be materially lessened.

Never fully extend a horse earlier than a fortnight before the day on which he has to run, for if this be done he will be apt to get slow ; yet, for all that, he

should be sent along pretty fast occasionally during the latter part of his training, in order to vary the monotony of the work, and "to get the pace into him." Men, horses and greyhounds are the only animals that are trained for match running, and it is a curious fact that the former alone will bear being extended day after day without losing their speed; besides this, a man will stand more training than either of the other two. In preparing for "sprint" running, say for a 100 yards' race, a "ped" is "sent against the watch" day after day, and as long as the time continues to improve, so long will his trainer keep him at it, but the moment he begins to do worse time, he is eased off for three or four days, and then set at it again.

Never have a less interval than ten days between each sweat. . .

Never sweat later than ten days before a race, for a horse should have just enough time before running to be eased off and to get a little above himself; in fact to allow his nerves to regain some of the nervous power expended during training.

If a horse can be held with a snaffle, never use any other bit.

Avoid trying your horses against each other, or the watch.

On finishing a gallop, always turn round towards the inside of the course, it will prevent horses learning to bolt off it; and finish the gallop a couple of hundred yards beyond the winning post, and then pull gradually up.

Have the rubbing down shed beyond the winning post and on the inside of the course.

Avoid galloping horses in clothing, as it cramps their action, and the extra weight of it may tend to shorten their stride and strain their legs.

Have as light riding boys as possible, compatible with their being able to hold their horses together.

Remember that a horse should never scrape quite clear and watery sooner than the last fortnight of his final preparation; if he does so he is certain to become stale.

The longer distance a horse has to go, the finer should he be brought.

Never extend a horse over a longer distance than he has to run, or he will get slow.

Never use whip or spur in a training gallop.

And now one last word. Assuming that a horse in training continues in good health, with his legs cool and fine, that he is never off his feed, and that his dung is in good order, we may safely be guided by the way he scrapes, after his morning gallop, in judging of the manner in which his condition is progressing, and whether he requires a sweat, or more or less work. Remembering that he should not scrape quite clear till the last fortnight, we ought to have a very fair idea of the amount of work he should get during the remainder of his preparation, to gradually reduce his sweat down to the desired consistency. Of course I allude here to the amount, and not in any way to the nature, of the work to be given. When a horse after slight exertion breaks out into a watery and copious sweat and dries slowly, one may be pretty certain that, he does so through weakness, either functional or organic, and that he is in a most unfit state to continue training in. In fact, what he would generally require in this case, would be a few linseed and bran mashes, some green food, and several days' rest.

Many excitable horses, when in the most perfect condition, will break out into a copious sweat if brought on a race-course, this the trainer should on no account mistake for sweating from weakness or grossness.

The great thing to avoid is getting a horse fit too soon. Condition is only relative, for a horse

may be in perfect training, though showing little muscle; but what we want is quantity, as well as quality of muscle, with clear pipes and "the faculty of going" thoroughly developed. This desired state of muscle can only be obtained by work, which cannot be *continued*, if the horse be prematurely brought too fine, for the consequent strain on his nervous system, will be more than it can bear and he will soon become stale.

Any man who has trained hard for pedestrianism, rowing, or race-riding, will practically understand the meaning of staleness; and we may safely infer that its causes are similar both in men and horses. There is some mysterious connection between the quantity of fat in one's body and the state of one's nerves. Without going into the matter physiologically, I may broadly state that when a man gets much below his ordinary weight in health, *i.e.*, loses his fat, whether by excessive exercise, physic, sweating or banting, and continues hard work, he will soon become nervous and shaky, a state which can be cured only by rest, and by discontinuing the means taken to get thin; and then as his weight gets up, so will his nerves regain their tone.

We know the amount of fat in a horse by the manner he scrapes, for the more beefy he is the thicker and more frothy will be his sweat. As he loses this fat, his sweat will become thin and watery and will gradually lose its greasy feel, when touched with the fingers. When a horse is in perfect condition, his sweat should be scanty, come off as clear as water, and he should dry almost as soon as the scrapers have passed over the surface of his skin. He will then have the smallest amount of fat in his system compatible with his nerves remaining *for a very few days* in good order. Of course he should be wound up to this concert pitch only just before his performance is to take place.

A man in ordinary good healthy condition will weigh from 7lbs. to 12lbs. heavier than he would do when trained for a foot race ; and we may infer that a horse, under the same circumstances, would lose three or four times the weight a man would. So here we have him with from 21lbs. to 3 stone less to carry and his internal organs free from fat, that would but impede their action during rapid motion. Now the whole problem of training a lusty horse is, how to get rid of this fat without deranging his nervous system, while at the same time, his muscles, lungs, and other organs are got into the most perfect condition. In India horses are rarely trained specially, as at home, for one particular distance, as there are few races worth doing this for. The usual practice is to give horses, within certain limits, more of a general than of a particular preparation, so that they may be able to compete successfully over the varying distances at the different meetings to which they may go. Some can never get beyond half a mile, while the powers of others are limited to three-quarters or one mile. It would be useless to train such for longer distances, and the attempt would only render them slower over their own favourite lengths.

Ponies 13 hands and under had best be trained for half a mile, as that is the usual distance they are asked to go. Though there have been many instances—take Chieftain—of 14-hand Arab galloways being able to hold their own at even weights among Arabs of all sizes, still in ninety-nine cases out of a hundred, allowance for height—4 lbs. the $\frac{1}{2}$ inch—will not bring a 13 and a 13-2 pony together, nor the latter with a 14-hand galloway, provided the galloway has any pretensions to racing form ; but if one happens to possess such a rarity, one should naturally train him for distances at which he will meet those of the bigger class, for if he can succeed with them, he'll have

little difficulty in beating those of his own size, even in races shorter than those for which he was trained.

With an Arab galloway, the owner should decide whether to keep him for only galloway races, then a mile will be quite far enough; or also to take part in races for "all Arabs:" in the latter case, he should be prepared as an ordinary Arab, for say $1\frac{1}{2}$ miles. In the Bengal Presidency, galloway races hardly ever exceed a mile in length, though on the Bombay side they ask them to go a good deal further. $1\frac{1}{4}$ miles will be about right for a Waler or English horse which one wishes to run in races for "all horses."

If one has a Country-bred that can stay as well as gallop, that most valuable gift ought to be encouraged, and the animal may be trained over a mile and a-half, so as to run in races for Arabs and Country-breds. But unfortunately such Country-breds are hardly ever met with.

Horses differ so much in the way they stand work, that it is impossible to lay down fixed rules on that subject, and a writer on training can only give illustrative work and general rules, just as a whist authority may point out the proper leads and how to play certain hands. In both cases the inferences to be drawn, and lessons to be learned, will be only of general application.

In the following pages I shall consider only the training of the average style of horse we have in India, taking for granted that he continues sound, in good health, and does not refuse his corn. If a horse in training has a soft constitution, or is dicky on his legs, I must leave the trainer to exercise his own common sense, to provide for the varying circumstances under which the uncertainty of horse-flesh may place him.

To proceed to the routine of training: one should first consider, what length of time the horse has

to get fit in before running. If there be five or six months, they may be divided into three periods; namely, preparatory work and first and second preparations, each lasting from seven weeks to two months.

Before commencing any work, the horse may get the following alterative ball :—

Tarbadoes Aloes	...	...	... 1½ drachms.
Nitre	...	...	... 4 "
Tartar Emetic	...	...	... 1½ "

Treacle enough to make a ball.

When horses are sound, well, and have lots of time before them, I really cannot see the good of giving physic beyond just sufficient to bring their livers into good order, for that organ frequently becomes torpid or slightly congested, from the effects of the long hot weather in the plains.

But if he be very gross, or with not the best of forelegs to stand the work necessary to reduce his system, a physic ball of four or five drachms of aloes and two of ginger will be sufficient. Before giving medicine the corn should be stopped and bran mash substituted for a couple of days.

I think about two o'clock in the afternoon is the safest time to give a ball to a horse and that there is then little chance of his becoming overpurged during the night, when help cannot be readily obtained.

The first month's exercise may consist of walking for a longer distance than the horse has done during the summer, say eight miles in the morning and six in the evening, varied every second day or so by a couple of miles trotting, or a slow canter for a mile now and then. In fact the work should not exceed gentle hacking. On commencing the second month the trotting may be stopped, and slow cantering, from one to one and a-half miles, substituted. This work ought only to take place in the morning, and should

be gradually lengthened. The speed of the canter ought only to be just sufficient to keep the horse out of a trot, or perhaps a very little more. During this month no clothing should be put on at exercise, for the weather will be still very warm, and on no account should a horse do more work than in the morning a slow canter after an hour's walking, and in the evening nothing more than a six-mile walk. The morning work should be completed, and the horse back in his stable, before the sun is well up.

On finishing the canter, the horse should be pulled up very gradually, so as not to strain his forelegs or hocks, and not till he has gone a couple of hundred yards beyond the winning post, if on a race-course, then turned round towards the *inside* and trotted to the rubbing down shed where he is scraped and rubbed down, as I have described in the chapter on Daily Routine.

A couple of times a week, the monotony of this work may be broken, by taking the horse out in the country, and then canter and walk him by turns for eight or ten miles. This will keep horses fresh and in good spirits, for they appreciate an "outing" and change of scene, just as much as we ourselves do.

After these two months of preparatory work, the horse's muscles and sinews will begin to harden, and he may now be put to regular galloping.

The work we shall now consider is that which I think suitable for an ordinary second class Waler. An Arab's gallop should be quite a quarter longer distance and he should have no short "spurts." Long slow gallops for two and a half or three miles may be substituted in their place. In timing, allowance should be made for the fact of the Arab's comparative slowness. Thus, for instance, a second class Arab that could do at weight for

age a mile in 1m. 57s., i.e., say 7s. worse than a second class Waler, ought in a gallop at conventional half speed over that distance to take about 12s. longer, than would the Waler under similar conditions: for, of course, the difference of time between the two at half speed would be nearly double that between them when fully extended, the distance being the same in both cases.

It is not without considerable hesitation that I give illustrative timing, for I know well what a large margin must be allowed under varying conditions, dependent on the style of horse, the weight he carries, and the state of the galloping track; and I crave the indulgence of the reader in my novel attempt, which I make solely in order to furnish inexperienced amateur trainers, who are unable to obtain practical assistance, with the best *general* idea I can of the nature of the work required to bring an ordinary race horse in India fit to the starting post.

The first preparation of two months should commence with slow canters, which may gradually be improved towards its close, up to a little better than half speed. An ordinary Waler, unless, indeed, he be wanted for some particular distance, may commence work at $\frac{3}{4}$ mile every morning and increase it up to $1\frac{1}{4}$ mile by the end of the first preparation; further than this may make him slow.

But if he is to be trained for races of only one certain length, then three-quarters of that may be begun with, and he should gradually go up to the full distance. This may be varied once a week by a $\frac{1}{2}$ -mile spin, somewhat quicker than the usual pace, in order to keep up the horse's "faculty of going," and an off-day's hacking in the country will be of great service, as well as a slow gallop once a week for a couple of miles. For instance, the week's horse work might be divided in the following way,

after the horse has been in regular training for five or six weeks :—

Monday	1 mile, $\frac{1}{2}$ speed.
Tuesday	hacking in the country.
Wednesday	$\frac{1}{2}$ mile, $\frac{3}{4}$ speed.
Thursday	1 " $\frac{1}{2}$ "
Friday	1 " ditto.
Saturday	2 miles, slow.
Sunday	Rest.

Besides this rest on Sundays, I would advise the trainer to give the ordinary Arab or Waler an extra day's rest once a fortnight in the middle of the week, and a bran, or linseed and bran, mash may be substituted for the usual feed of corn on the evening of the preceding day, just as if it were a Saturday. Horses that are shy feeders, or are easily upset by work, should have this extra day's rest every week.

What we call half speed is considerably faster than if the distance were done in twice as long a time as the horse could do it at full speed, and the same remark applies to three-quarter and quarter speed. Quarter speed is in reality about seven annas, half speed somewhat better than ten annas, and three-quarter speed about fourteen annas. Thus, for a horse that can do his mile in 1m. 50s., the time that he would take to do that distance at the different speeds, would be about as follows :—

$\frac{1}{4}$ speed	...	...	...	4 min.
$\frac{1}{2}$ "	...	...	...	2 " 50 secs.
$\frac{3}{4}$ "	...	...	...	2 " 10 "
Full "	...	...	...	1 " 50 "

As a rule, a uniform rate of speed should be maintained during each gallop, for nothing upsets a horse's style of going and temper more than putting on the steam the moment he enters the straight run in. Horses accustomed to this practice, often refuse to extend themselves till their "heads are turned home," and then either bolt or run away. This, of course, would be fatal in a race.

The speed and distance of the weekly work that I have detailed, should be gradually increased as the preparation proceeds. Thus, an ordinary second-class Waler, say, one who could do his mile with weight for age up in 1m. 50s., might commence doing his mile gallops in 4m., and towards the close of this preparation do the $1\frac{1}{4}$ mile in 3m. 25s.

During regular training, a horse should do *about* 12 miles a day, including every kind of exercise. For instance, 4 miles before morning gallop, $1\frac{1}{2}$ miles gallop, $1\frac{1}{2}$ miles walk back to stable, 5 miles walk in evening; this amount should be rarely exceeded, as long continued walking makes horses stale and legweary. On days of rest, 5 miles walk in the morning and 4 in the evening will generally be enough. If a horse be gross, and have at the same time doubtful legs, I'd prefer to trust to a mild dose of physic, say, once a month, and a sweat, say, once every ten days, at a trot and walk late in the morning, than to too long continued walking exercise.

I am very averse to putting clothing on every day, as the extra weight must, however slightly, tell on the horse's stride, as well as on his legs. Better trust, I think, to a slow sweat, now and then, which in this climate, may very well be given at a trot.

As I have previously pointed out, the trainer must be guided by the manner a horse scrapes, in deciding as to the advisability of giving him a sweat, for in this preparation, he will not be sent quick enough to try his pipes. During this time the sweat will gradually lose its greasy feel, though it will still come off pretty thick. On this subject it is impossible to give minute advice, and I must leave the tyro to be guided by his own common sense, and the general principles I have touched upon.

If time be limited, a stout, lusty horse will probably require a sweat once in three weeks, and I would advise it to be given at a much slower pace

than is the custom in England. The clothes and distance may be arranged as follows :—

Put a thick rug over the horse's back in the ordinary manner, then take a long country blanket, fold it lengthwise, pass one end under the horse's belly to a man on the off side, make him draw it towards himself till it be properly divided, and pass the ends one above the other over the horse's back, so that the rug and blanket may be tightly wrapped round his body. Another blanket is folded like a shawl, passed in front of the horse's chest, and well up his neck,—so that it may not interfere with the action of his forelegs—the ends are now crossed over the withers and brought down on each side under the place where the saddle will come, which is now put on, and keeps this chest wrap in its place. A couple of hoods—the outer one, with the ears cut off—complete the clothing, and the horse may now be sent on his journey, the length of which, as well as the amount of clothing, will depend on the style of horse and on the heat of the weather. If the sweat be given in September or October, it will be quite enough to send the horse two miles at a trot, or very slow canter, and another two miles at half speed, which would be about 6m. 20s. for the latter distance (taking into consideration the extra weight of the sweaters), and the pace may be slightly improved for the last half mile. After this, he is trotted to his rubbing down shed, and there covered over with more clothing for about 10 minutes, or until the sweat begins to trickle freely down his legs, and drop from his fetlocks. The hoods should now be removed and the neck well scraped, wiped down, and dried.

The saddle and blanket across the chest are taken off, and after that the body clothing. Each part on being uncovered is scraped and dried in succession. Light carcassed horses will not require sweating at all, and a four-mile gallop at half speed

without clothing, or at most a hood, or one light suit, once a fortnight, will be all that is required.

If after a sweat a horse refuses his corn, he should get some green food such as carrots or lucern during the day, a bran mash at night, and no work at all next day beyond walking : his regular gallops should not be commenced again, until he has recovered his appetite and spirits. As a general rule a horse should have no work on the day following a sweat, and for that reason, it is usually given on a Saturday.

In the case of a lusty horse with doubtful forelegs, it would be dangerous to trust alone to exercise to get him fine enough, or even to sweating in the ordinary way, which from the extra weight carried would try his legs too much. Such an one will require probably physic every two months, and a sweat once a fortnight, which should be given at a trot, and later than usual in the morning, so that the heat of the sun may aid the wasting process without entailing extra work on the legs. Gross horses with dicky forelegs are always the most difficult to bring out, for the heavier they are above, the worse chance will their legs stand ; for this reason, before the trainer can venture to send them fast, he must get off some of this weight.

If at the end of this first preparation, the horse appears at all feverish, or his legs inclined to inflammation from work and high feeding, he should be thrown out of work for a week, bran mashed for the first two or three days, have some green meat given, and an alterative ball administered. For three or four days after this his corn should be diminished by one-half and only walking exercise given.

Through the first month of the second preparation, the horse, if a Waler, may at first be sent $1\frac{1}{4}$ mile at about half speed, say in 3m. 30s. and improve it up to 2m. 40s. which would be about conventional

three quarter speed. The short spin once a week may now be gradually increased to $\frac{3}{4}$ mile. During the last month of the training, this may be discontinued and a long gallop substituted, or an extra days' rest, in the middle of the week, according as the horse is found to stand his work. The speed of the regular $1\frac{1}{4}$ mile gallops may be gradually increased up to the beginning of the last fortnight within 7 or 8 seconds of full speed, and no sweat should be given later than this. During this last fortnight the trainer should be most careful not to overwork his horse, though he ought to wait till then before fully extending him. Two Sundays' rest, another day's extra rest between the fast work, two long slow gallops, seven fast ones for the distance to be run at nearly, if not quite, full speed, a slow canter for $\frac{3}{4}$ mile, on the day before the race, and the race day itself will be a judicious division of the last fortnight. The fast gallops should not be given by racing horses against each other, for a very little of that kind of work will go a long way.

I have endeavoured by using approximate times for the gallops to give a general idea of what would be advisable with a second class Waler, that with 9st. 7 up could do on a level course his mile in 1m. 50s. and $1\frac{1}{4}$ mile in about 2m. 21s. But there is such infinite variety in the way different horses stand training, that it would be fruitless to give more than a general outline of the system to be pursued, with some hints and general directions that I hope may prove useful. All the same, however well up a man without personal experience may be in book lore on training, the chances are that he will ruin a horse or two in his first essay ; but as soon as he gets some practical experience, he will quickly learn how to apply his book knowledge.

One should never forget that there are many horses that run best untrained ; they are generally

light carcassed, impetuous horses that a sight of a race course will upset for a fortnight, they should be well looked after in their stable, get lots of walking exercise and quiet hacking, and have a gallop only once in a way—say every ten days—and that away from a race course.

Horses that are rogues or bolters, should never be trained on a race-course, but should get their work hacking out, pigsticking, or with the hounds. One can often get a long stretch of soft ground by the roadside or in the jungle, on which to extend a horse without letting him know that one means "business" with him : horses are extremely sharp in this respect, and they know a great deal more about racing than we give them credit for.

At the risk of being laughed at, I positively assert, that many horses know when they lose and when they win a race, and show this knowledge often most markedly by the way they look and carry themselves after it. I have frequently remarked that, the well-known Arab galloway Caliph very seldom on the day of a race required a setting muzzle, for he would of his own accord, neither touch grass nor his bedding and only just wet his lips in the morning, though he would take his allowance of corn all right. I believe the Arab Sunbeam had the same peculiarity. It may be asked how they knew they had to run on some particular day? Very easily, I should say, from the fixed routine they had been accustomed to at previous meetings—such as being plated, having their manes plaited, having a slack day on the previous one, after several days of fast work, &c.—while the appearance of the race course showed plain enough, that races were about to come off.

Most platers, on coming on the track of a race-course for the first time, will plainly show that they recognise it as such. Then again, how many old race horses know when to make their effort on nearing the

winning post, though some of them would probably shut up were they called upon earlier by their jockeys. How well a horse knows whether his rider has spurs on or not ; some will go as sluggish as a cow if they are absent, though were the spurs on they would be all life, even without the Latchfords touching them. Some will refuse to try if the rider has spurs, and even when they are not on, will require a few kicks in the ribs, just to show no punishment is meant.

There is always a difficulty about riding boys in this country. In England stable lads can either ride or be capable of being taught, but among natives it is not the *custom*, and it is most difficult to get lads, so one is frequently forced to send horses alone or at most in pairs. I am aware of the difficulty of finding a boy who has even a little idea of pace, and in default of having such an one, I strongly recommend the amateur trainer to time every gallop, as well as each quarter of a mile of it, so that he may be able to correct the lad as occasion may require. To do this, one will require a good stop watch. I prefer a chronograph in which a needle point passes vertically down the extremity of the second hand through a small reservoir of ink there, and marks on the dial the different distances noted, without stopping the watch.

Young horses should be led in their gallops with an old one in front, and should occasionally be allowed to draw level and pass the other on nearing the winning post. In doing this the pace of the leader should be checked, so as to allow the change of positions to be made without an effort on the youngster's part ; in this way he will gradually learn his business, and towards the end of his training will have learned either to wait or lead.

When horses are to be trained for short distance races, as for $\frac{1}{2}$ or $\frac{3}{4}$ mile, they may be run much

bigger than were they intended for longer ones, and the trainer should avoid ever sending them long gallops, except at a canter now and then, for this will be less detrimental to their pace than gallops at, say, three-quarter speed for a mile or a mile and a quarter. They should have lots of walking and hacking. Three gallops a week over the short distance they will have to race will usually be enough. Another point is, that for short races, horses should never be galloped on a heavy course, as it teaches them to dwell in their stride and to lose the quick stroke in the gallop that is essential to speed. They should be also taught to start well and get quickly on their legs. To do this the rider must have hands good enough to catch his horse by the head, and send him "into his bridle" in a moment.

When a horse gets only long slow gallops, his style, however good it may have been originally, will gradually accommodate itself to this pace, and if continued for a long enough period will become permanently altered, or at least a considerable time must elapse before he will be able to get out of this slow way of going. The reason for this is obvious, and results from the fact that in order to cover different distances in the fastest time, different styles of galloping are required. To support this assertion, we can draw the analogy from pedestrianism, that the "ped" in a 100-yard race will take very much longer strides, than were he running in say a $\frac{1}{2}$ -mile match, and in order to enable him to do this the spike under the big toe in running pumps for "sprint" races is always put further forward than for medium or long distances, which arrangement will allow him to get well on his toes, and consequently to lengthen his stride as much as possible. But the more a man lengthens his stride, the more it will fatigue him, though the faster he will run for a short distance. This long rapid stride can be main-

tained for only a very short way, and for a long race it must be proportionately shortened and the runner will instinctively go more on the ball of his foot, because remaining on his toes will be too fatiguing to be continued for any length of time.

When any particular kind of exertion is continued in any unvarying manner, either by man or horse, the muscles that are called into play, obeying a beneficent law of nature, gradually acquire the action that will perform that work with the least possible exertion. Thus the muscles, that have been accustomed to the style of the slow gallop, will be unable to act at a fast pace to the best advantage. But as the walk, trot, and canter are totally different in their action to the gallop, practice at them will not necessarily *spoil* the style of going for the latter, though it will be in nowise sufficient in itself to bring these muscles to their highest state of perfection for fast work.

In order to obtain a satisfactory trial, horses should only be tried when they are quite fit, which ought to be but a few days before the actual race comes off, unless the owner trains his horse specially for a trial, to see, for instance, if he be worth keeping for another season. The trial horse should be in every case equally well trained and be one whose public form is (*not has been*) thoroughly well known. Equally good jockeys should be put up, or in default equally bad, and the trial should be ridden out as in a regular race, without favour or affection. Even with every precaution, trials are not always to be relied on, and a margin of 10lbs. for mistakes would be little enough in the generality of cases, for so many horses perform differently in public from what they do in private. Besides with a lot of horses in a race, one can never tell how it will be run, or what accidents may happen.

We have considered the work a horse may get, if there be five or six months to prepare him in before

he runs; but if the time be limited to only two or three, a dose of physic on commencing will be generally required, for one must hurry on the work, which with high feeding, if physic be not given, is apt to upset a horse's system and make him feverish, thereby rendering his legs prone to inflammation. Pursuing the system I have already described, the horse will be put without loss of time into slow work, which will be increased up to a little beyond half speed by the time half the period allowed for training has elapsed. If the horse is well and his legs fine and cool, no more medicine should be given, and the work can be continued as I have shown in the second preparation. But if the horse's system appears at all out of sorts, or his legs inclined to fill, an alterative or physic ball—as the case may require—should be given; and three or four days after the medicine has “set” work may be re-commenced.

It will be a great assistance to an amateur unaccustomed to training to keep a diary in which he will enter the distance and speed of the work done, the amount of corn eaten every day by each horse, with any remarks on their condition, &c., he may wish to note.

I have gone into the subject of food in Chapter III, and shall not again notice it further than by saying that, in training, a horse's corn should be gradually increased up to the last two months, during which time he should have his full allowance, namely, as much as he can eat. If a horse's digestion gets upset by too much corn, the latter should be diminished, a bran mash given for a couple of nights, and some green meat, such as carrots and lucern, substituted for a part of the corn.

The amateur trainer will do well to study the marks of good condition in the horse, and until by practice he is able to recognise them, he need not hope for much success in his efforts; for to train

well one must have an educated eye, that will detect the minute gradations of condition, and having acquired that faculty, one will see at a glance what each horse lacks.

The most unerring sign of condition in an athlete is the fact of his being able to go through hard work without becoming thirsty; so will the trainer find that as a horse gets fit, the avidity with which he takes his water after his morning gallops will decrease; while staleness is almost always accompanied by more or less thirst.

When a horse has not been worked for a considerable time, the muscles (those covering the *humerus*) between the forearm and shoulder lie nearly flat; but when he is in racing condition they come out in a distinct lump, the under margin of which will be nearly on the same level as the elbow, and directly above the forearm as viewed in profile.

CHAPTER VIII.

RIDING.

Setting—Management of the horse before a race—Race riding—Making the running—Waiting—Riding to orders—Riding a “cur”—Finishing—Getting through a crowd—The seat—How to hold the reins—How to use the whip.

THE degree of “setting,” which term is used to express the routine employed in stinting a horse of his food and water before a race, will depend on its length, the time of day at which it is to be run, and on the condition and constitutional peculiarities of the animal itself. The longer the race is the sharper should he be set. If it is to come off in the morning and the horse is gross, he should get only a handful of grass after his morning feed on the day preceding the race, and after that the muzzle should be put on and no more grass allowed till after the race next morning, the evening feed may be slightly decreased, and the small feed of one pound in the early morning should be given three hours before the race comes off. In this case no change in the system of watering on the day preceding the race is needed.

Water is very rapidly absorbed into the blood, and on that account, when taken in moderation a couple of hours or so before a race, it does not act as a mechanical obstruction to the organs exerted in violent exercise, nor does it occupy the functions of the body in its assimilation for a considerable time as corn would do: for these reasons one need not stint a horse so sharply in the matter of water, as in that of food.

If the races be held in the evening—as they almost always are up-country—the setting need not be so strict, and the ordinary allowance of grass (say 6lbs.) may be given the day before. The trainer

will now be guided by the style of horse, whether to put on the muzzle the night before the race, or to wait till the next morning; in most cases I think it better to err on the latter side, for if the muzzle be applied over-night, there is a great probability of the horse getting fidgetted by it, and thereby being prevented from having a good night's rest. Any how, on the morning of the race, he is given his usual one-pound feed and taken out for an hour and a half's walk, after that he gets only half his allowance of water and about two-thirds of his usual feed of corn: the muzzle is put on, and three hours before the race he gets his double handful. As a horse takes about three hours to digest his food, we should arrange the intervals of feeding accordingly: for instance, we will suppose a horse has to run at about 4 o'clock in the afternoon during the cold weather, then he should get his early morning's pound at $\frac{1}{2}$ past 5, his corn at 9 o'clock, and his double handful at half-past twelve.

If a muzzle does not irritate a horse, it is better to use one than to take up the bedding, without which horses will not lie down during the day, and many will abstain from staling much longer than they ought to do. On the day of the race the grooming should be got over quickly, for the horse should be disturbed and excited as little as possible, and for this reason I would never plait the mane of an excitable horse.

Having arrived at the race-course the horse should be kept walking under shade, if possible, and the saddling should be done quietly and without any fuss; I think it is advisable for the owner to look after this operation himself, and to see that the weights, girths, stirrup leathers, etc., are all right. The horse gets now from a leather-covered soda water bottle just enough water to rinse his mouth out, the jockey is given a leg up, the syce dusts his boots down, and off they start for the post,

where a syce should always go in case of accidents, and if he takes a spare stirrup leather and girth they are not much weight and may come in useful, for such things often break at false starts. Besides this, the jockey may have to dismount in order to arrange some part of the gear, and will require the syce to hold his horse or to lead him up to the starting post in case he be fractious. At starting, if the rider be a new hand, he should sit well down in the saddle, so that the horse may not chuck him on to the pommel by a sudden plunge forward, and he should wait till the horse has got into his stride before standing in the stirrups, for he may throw him out of it by suddenly changing the position of the weight before the horse has settled down to his work.

The subject of race riding has been written on so fully and so frequently that, there is little left for me to do, beyond calling the amateur's attention to a few practical points.

A jockey should never make the running if he can get any other rider to do it for him. I mean that, if he immediately after the start finds another cuts out the pace fast enough, he should wait on instead of racing against him. But if he cannot get another to make the pace he should accurately judge it, so that his horse will have just enough left in him to make an effort at the finish in the event of being collared. Even when forcing the running, if the jockey finds his mount can go no faster, he should on all occasions take a pull at him, if only for half-a-dozen strides, for then the horse will get a chance of "coming again," which he never could do when distressed, without being eased off for a moment.

As a rule, light weights ought to make the running, and especially so if the track be heavy and holding, for in this case a difference of weight will proportionately much more effectually stop a horse than on a light course.

The longer the distance the more will weight tell. Horses with large broad feet will generally act best through "dirt" or sand, from the mechanical advantage this gives them over those with small feet. The generality of hard determined pullers are done running when they stop pulling, and the moment this occurs they are left without the power of making an effort, for this reason a jockey ought to be particularly careful "to keep a bit in hand" with one of this sort.

The advantage of making a waiting race for even a part of the journey is that, one can see how the other horses are running, and having ascertained this, one can elect to remain where one is or to go in front. But if the jockey forces the pace from the start, he runs a risk of choking his horse in the beginning of the race, and if it turns out that the tactics of making the running were injudicious, he will find this out only after the race is lost.

Many horses are so impetuous that they cannot be kept behind without it taking more out of them than the severity of the pace itself, and if such an one be not a particularly good stayer, his jockey should "wait in front" with him, which means that, he should merely keep in front without at all forcing the running on his own account, but simply conform to the pace of those immediately behind him whether it be fast or slow, till the moment arrives to make his effort. Sometimes all have waiting orders, and when this is the case the jockey should be on the look out to avoid "getting the slip" from one of the others; this is done when a jockey seeing his opportunity while they are all going slow, catches his horse by the head and sends him sometimes five or six lengths a-head, before the others know where they are. If this happens half a mile or nearer from home, these lost lengths will be very

hard to pick up again. When there are several horses in a race, one will very rarely get the chance of slipping one's field, for some one or the other will be certain to cut out the running.

If the orders be to wait, they should not be carried out, as I have often seen, by losing the start, or by pulling the horse out of his stride in order to get him behind at all hazards. But the rider should always get away as well as possible, and settle down as soon as he can into a steady uniform pace, a trifle slower than that of those that are making the running, and then wait till they "come back to him," or till he arrives at the spot from which he sees it most judicious to make his effort, judging by the way the horses he has most to fear are going, and by the distance they are from him ; he should then sit down in the saddle, catch hold of his horse's head, and trust to speed to make up lost ground and win the race.

When giving orders to wait it is always risky to lay down too precise directions for one's jockey, such as to keep a certain number of lengths behind the leading horse, for the latter may be sent from the post to cut out the running for another at a pace which will cause himself to collapse before half the distance be gone ; or to wait on some particular horse, which has been the cause of many a mistake, for the dreaded one may turn out a rank duffer and by the latter continuing to go no faster—though he may be doing all he knows—the misguided jockey may have, in the meantime, allowed the others to get so far a-head, that there may be no catching them, while the error will be perceived only when it is too late. As a rule, it is far better to ride a race so as to suit the capabilities of one's own horse (with which one ought to be fully acquainted) than by riding to the weak points of the supposed dangerous horse or horses, which must naturally be problematical, and for this reason I would never hamper a jockey's judgment by

laying out the programme cut and dry, but should simply tell him my horse's peculiarities, and what kind of running would most likely bring him quickest home; for instance, with a speedy horse in a $1\frac{1}{2}$ mile race, instead of telling him to wait so many lengths behind, I might say "get off well and keep at about three-quarter speed to the $\frac{3}{4}$ mile post, gradually get up within a couple of lengths of the leaders at the distance post, take a pull at your horse for a few strides if you find him distressed, and make your effort the moment you think you can get home." And then if one's nag gets beaten, the probabilities are that the winner was the better horse of the two at the weights and distance run, a fact that sanguine owners of beaten horses often overlook.

Sometimes it does happen that the riders of the two best horses mutually wait too long on each other, and allow their field a start that cannot be recovered again in time.

Green hands are often deluded into waiting when they ought to have kept going on, by a jockey pretending to flog when in reality he is but whipping his boot. This little game is, of course, only tried on by the rider of the speedier horse of the two, in the hope of inducing the rider of the stayer to slacken speed, on the supposition that he has the race in hand and that there is no use hurrying. I need hardly say that, if a man perceives himself the subject of this dodge that, he should at once put on extra speed, of course supposing that there were no other horse formidable in the race.

As a rule in a match, if one's opponent be on a cur, one should try to jump off with the lead, and cut out the running at once, whatever sort of a horse one may be on, provided he be but game; for nothing makes a cur shut up so soon, as being collared. A jockey on such a horse should do all he can to persuade him that he is running away, and

generally the more the man on him pulls the 'faster will he go. Many horses have to be ridden in this fashion. Mr. Le's bk. e. g. Call and the grey Arab Rising Star were good instances of this.

Giving half a bottle of port or sherry, or their equivalent in spirits and water, before a race is a well known plan to get rogues to run kindly. This is often advisable after a race when the horse has to run a second time on the same day.

Some horses wont extend themselves unless spurs are on ; others will shut up if they get the slightest prick. The same can be said of the whip. At almost every meeting we see races lost by inattention to horses' peculiarities, so it behoves the trainer and jockey to find out those of their horses. If a horse will not stand spurs or shuts up when they are used, the rider after taking them off had generally better in the preliminary canter give his horse a couple of kicks in the ribs, just to show him that he need not fear that the Latchfords are on.

Old horses that are a bit stiff on their pins, should have a steady preliminary canter for half mile or more, till they are well warmed up before starting.

During a race, as a rule, one ought to avoid horses directly alongside, especially when on an impetuous one.

A jockey should allow a horse that is at all shifty to make his own running and effort while interfering with him as little as possible. All horses very quickly learn what a race means, and I believe that better results would be obtained than we get, by trusting to their judgment oftener than we do concerning how races should be run. I have seen several instances of success having been secured by acting thus.

When coming up the "straight run in," if one finds that the leader has the race easy, one should get directly behind him on the chance that he may

slacken speed to look round, or at his boots, or at the Stand, and then with a rush on the side from which the other's head is turned he may manage to shoot him on the post ; while the beaten man is left to wonder where the deuce the winner came from.

Many a race has been lost by over confidence of the rider of the leading horse when winning easily, by trying to make a race of it for the "gallery," or being cajoled into slackening his pace by one of the riders in rear, and then being unable to set his horse going in time to stall off the other's rush.

At a finish it is always best to be on the whip-hand of one's most dangerous opponent, who might close in, either intentionally or by his horse swerving, and prevent one from using the whip with the right hand.

If a jockey be behind two horses, the leading one close on the inside and the other away from it, but in rear of the leader, he should never attempt to get through on the inside, for all that the rear jockey will have to do in order to shut him out, will be to close on the leader and then the pair of them can keep him there. This is a common trap, and many who ought to have known better have been caught in it.

It is always dangerous to try to get through on the inside, for *all* men won't give way, and it is anything but pleasant to be shoved up against a post or the railings.

The straight run in on the Deyrah Doon race course is about one-third mile up a stiff hill, with about the last 200 yards level. On this course, when riding a close race, one should always endeavour to take a pull at one's horse even for a second immediately on reaching the crest of the hill, in order to allow him to catch his wind for the final struggle and to settle down in his stride on the level ground.

When riding a horse that is apt to refuse in a Steeplechase, the rider would be wise to manage as often as he can to keep on the side, away from which his horse usually refuses, of any of the others when nearing a fence, for having a horse on the side to which he is inclined to swerve will often keep him straight. As a rule horses refuse to one particular side, that being the left in most cases, and the cause, perhaps, an injudicious use of the whip on some previous occasion.

As a last piece of advice, I would advise the tyro never to be too anxious to "get home" and never to "draw it too fine."

When standing in the stirrups one should remain still with the hands down, the body slightly bent and free from all stiffness, so that it may conform to the motion of the horse, the rump should be raised (not stuck out behind) from the saddle without any bumping or movement up and down, and the weight should be on the stirrups so that the horse will gallop freely between the rider's thighs.

The possession of a good, firm seat on horseback is mainly dependent on the rider being able to get what nature has given him to sit upon well under him, but if that be stuck out behind, the head and shoulders will have a tendency to go forward on the slightest provocation, the result of which we all know.

When riding over fences a man should always sit down and lean well back, so as to reduce the jar on the horse's forelegs as much as possible, and to be able to catch a good hold of his head in case he tries to refuse at the last moment or makes a mistake.

In military riding the length of stirrup and position of the leg are laid down, but it would be nonsense to do this for race riding or cross country work, for the best kind of seat for each particular man does not depend on fixed measurements, but on the individual shape of the legs and body.

A man should *always* ride with both hands on the reins, except when using the whip, whether on the flat or "between the flags."

With a puller a little powdered rosin on the hands will prevent the reins slipping through them ; this is often a matter of consequence with horses that throw their heads about much, for the reins are apt to get wet and slippery by rubbing against the horse's neck.

The way jockeys hold the reins is as follows:—With a single rein or double reins on a snaffle, take the near-rein between the third and little fingers of the left hand and bring it out between the first finger and thumb ; then place the off-rein over the flat of the same hand, so that the reins will cross each other on it. If the horse pulls or the reins are wet, the end of the near rein, that has passed between the first finger and thumb, may be brought over the latter, down the flat of the hand and kept tight there by the pressure of the fingers.

When using both hands, the left one should hold the reins as before described ; the off-rein should be taken up between the third and little fingers of the right hand, between the fore finger and thumb, of which the end of the near-rein should pass. The hold on the reins by both hands will now be perfectly symmetrical, and they can be shortened or lengthened by simply drawing the hands apart and at the same time tightening or relaxing the pressure of the little fingers, as the case may be, on the reins ; this done, the hands are brought near to each other again.

When a bit and bridoon is used, the snaffle reins may be taken up as I have described, and the bit reins drawn through the left hand, with its middle finger dividing them, and passed down between the little finger and heel of the hand, and underneath the off-snaffle rein ; the only rein that will come out between the fore finger and thumb will be the near snaffle one. When riding with both hands, the

right takes the off-reins up while its third finger divides them. Or the bit reins may be simply hooked up by the middle finger of the left hand and allowed to hang loosely down. If the horse pulls, the manner of holding the bit and snaffle reins may be reversed.

Another method of holding the reins of a double bridle is thus :

Take the near-reins up with the little finger of the left hand dividing them, and the off-reins crossing them on the palm of the hand and passing between the first finger and thumb ; then take the off-reins up with the right hand, with its little finger dividing them, while all four reins will be between the first finger and thumb, held in the same manner as by the left hand. An easier way of learning this method is thus :

Take the near-reins up with the left hand and the off with the right, both hands kept separate, and the reins on each side divided respectively by the little fingers, on the outside of which the snaffle reins pass : then place the off-reins over the palm of the left hand, which should be held upwards, and divide them with the index finger of the left hand. If both hands be used on the reins, the right will now divide the off-reins with its little finger, and hold all four reins exactly in the same manner as the left.

When using a snaffle, if the rider wants to pick up his reins quickly—for instance immediately after a start—he should let go the off-reins out of his left hand, which he should slip forward on the near-rein (while the right hand retains its original hold on both) and having got the proper length, should catch the off-reins underneath with the palm of the hand upwards, and then a turn of the wrist will bring the reins in their place ; while at the same time the right hand quits its original hold and takes them up as before.

When a rider wishes to tie up one rein he should do so by making a slip-knot at the desired length, and not by knotting it.

Generally speaking the whip should only be used in the last few strides, and then only when the rider is forced to squeeze the last bit out of his horse. The jockey should cut straight down and as near the girth as possible, but never in front of it; duffers prefer hacking a horse about the sheath. During a race the whip should be held under hand (lash down), for if it be kept swinging behind the horse's head (as novices are apt to do) he will often watch it, expecting every moment a cut, and thereby his attention will be distracted from the race. When the moment comes to use it, the whip should be quickly "picked up" by turning it in the hand lash uppermost, the reins are firmly grasped in the left, the knees grip the saddle tighter, the shoulders are kept square, and the whole body steady, so as to allow no sway or oscillation that might jar on the motion of the horse or throw him out of his stride when the cuts are given, which rarely should exceed two or three. A novice should on no account use a whip, for none but an artist can *sit still*, hold his horse together with one hand and flog at the same time: though spurs do not present these difficulties, they are much less efficient than a whip is in the hands of a "workman."

I strongly advise the beginner to learn to hold the reins in the manner that I have described, as it is the only proper workmanlike way of doing so for race riding; by adopting it the reins will not be liable to slip through the fingers, for they will be kept tight by crossing over each other in the hand, nor will there be the slightest chance of the rider fumbling with them, when changing them from one hand to another—in the event of having to use the whip with the left—or when taking up or letting go the bit or snaffle reins.

CHAPTER IX.

SHOEING.

Shoeing—Speedy cutting and its prevention—Plating—Cutting down.

AS regards shoeing, I cannot do better than to refer the reader to Mr. Fleming's able work on that subject, which embodies in all its details, the modern and common sense practice of the art. I shall here briefly touch on the chief points to be attended to when shoeing a horse.

1.—To get the profile of the foot at the proper angle to the ground. This varies in different horses, but will generally be found to be from 45° to 50° . If the slope be less than these limits, too much work will be thrown on the back tendons and suspensory ligaments; while, if the foot be more upright, the extensor tendons will be unduly taxed. The slope may be readily measured by a six inch protractor furnished with a small plumb line. This angle should be obtained, as much as possible, by rasping down the sole and crust towards the toe, which process in a state of nature would be performed by the ground over which a horse travels. When the heels have been cut down too much at a former shoeing, the proper inclination should be obtained by using shoes thicker at the heels than towards the toes. The study of the feet of different horses or ponies that have never been shod, like scores of country tattoos that we may see in the grass-cutter lines of any Battery of Artillery or Cavalry Regiment, will soon teach one to recognise the inclination of the hoof to the ground intended by nature.

2.—To reduce the sole and crust so as to obtain pressure on the frog. Here we take for granted that the frog is in a healthy and natural state, for were it eaten away from the effects of neglect or cut down by an ignorant shoeing-smith, then to obtain pressure on

it, the crust and sole would have to be reduced more than would be advisable. While preserving the proper angle of the foot, the crust and part of the sole on which the shoe rests should, if required, be rasped down, so as to bring the frog (taking for granted that it is in a natural state) nearly on a level with the ground when the shoe is on. If this be done, there will be little risk of having the foot too long, which if allowed to happen will make the horse go cramped and stilty, on account of his feet being raised at an unnatural height from the ground.

By preserving the natural angle and by reducing the crust down to the same level as the frog, or to that on which the frog ought to have grown down to had it been in a natural condition, we shall obtain by artificial means a naturally shaped foot, which will be the one best suited for the performance of its duties.

3.—To remove all dead and exfoliated horn. When horn exfoliates, nature clearly indicates that its work is finished. These parts should be removed by the drawing knife, for if allowed to remain, the spongy flakes of this dead horn will take up dirt and wet from the ground over which the horse goes, while the presence of wet above all things is likely to originate decomposition in the healthy substance of the frog and sole, and thereby produce thrush.

4.—To have as light shoes as possible, compatible with their being of the proper shape and being stout enough to stand work. During training a shoe of from five to seven ounces, dependant on the size of the horse's foot, will be heavy enough. It should be quite flat and as broad as possible, so as to give bearing on the sole as well as on the crust. On no account should the shoe be made narrow at the heels, for if this be done the latter will get knocked to pieces. Fullering, which is the groove in which the nail holes are punched, may be dispensed with in training shoes, as it weakens them, while

if square headed nails (made in the form of a wedge to fit into the nail holes) be used, there will be little possibility of the heads getting knocked off. With light shoes, the concussion on the *laminae* of the crust must be less than with heavy ones; while their use in preference to the latter, undoubtedly reduces the labour thrown on the suspensory ligaments, whose office on each stroke of the gallop is by their elasticity to snatch (as it were) the foot from the ground. This is most clearly explained by Youat, and in the extract he gives from Percivall in his book on the horse, when discussing these ligaments. Besides this the lighter the shoes are, so long as they fit comfortably, the freer will be the action of the horse. Two nails on the inside and three on the outside, will be enough to hold on any shoe.

Shoeing-smiths in India almost always make the mistake of punching the nail holes too near the outside edge, which necessitates the abominable practice of nailing on the shoe within the circumference of the sole : with nail holes punched thus, were the outside edge of the shoe to fit exactly, as it ought to do, on the circumference of the sole, the hold the nails would then have would be too slight to keep the shoe on for any time. By setting the shoe within the circumference of the sole, so as to obtain more hold for the nails, there is a rim of crust left round the shoe, which has to be rasped round in order to prevent it from breaking and splitting irregularly ; this accounts for the universal use of the rasp round the lower part of the crust of the hoof, among bad shoeing smiths. Having accepted a false system of punching the nail holes, they are forced, in order to keep the shoe on at all, to fix it in a manner that necessitates the use of the rasp ; if a horse owner makes them fit a shoe (in which the nail holes are wrongly punched) exactly to the form

of the foot, and this shoe, from insufficient hold comes off in a few days, it will be a convincing proof to the ignorant shoeing-smith of the excellence of his own views on the subject, and the absurdity of our new-fangled ideas. For a foot with a full amount of horn, $\frac{3}{10}$ ths of an inch will be about the proper distance that the nail-holes should be from the outside edge of the shoes on its surface next to the sole ; a little more towards the toes, and a little less towards the heels.

I need hardly add that, after the shoe is on the rasp should be used as little as possible, in fact only to cut off the ends of the nails when clenching them. Syces like to have these clenches neatly filed down to the level of the outside of the crust, in order that their fingers or *jaruns* may not be hurt when cleaning the foot ; of course a careful owner will see that the welfare of his horses is attended to, in preference to the whims of his grooms.

I would let the feet of a steeplechaser grow longer than those of a flat race-horse, for the former is liable to lose a shoe when fencing and his foot may get knocked to pieces before the loss be perceived.

For steeplechasing there is nothing so good as a light hunting shoe, concave on the ground surface, except for about half an inch at the heels, which may be kept flat. The best variety of this shoe is the one in which the concavity commences directly at the outer edge of the shoe and slopes down to the inner edge ; this arrangement allows the heads of the nails to be concealed within this concavity, which affords them protection from being knocked off ; while the toe is slightly turned up. If the ground be at all slippery (as it generally is at monsoon meetings), calkins (projecting about one-third of an inch) should be used on the hind shoes. Shoes with calkins should always have clips, to prevent the shoe from being shifted backwards. I much prefer calkins on

both heels of a shoe than to have only the outside heel turned up, while the inner one is thickened, as is usually done. If they be put on the fore shoes a horse will be very liable to over-reach when fencing.

When shoeing with clips, they should be lightly hammered against the walls of the crust, and on no account should the toes be cut away to let them in.

Young horses require to be shod, or their shoes removed, oftener than older ones, as the horn of their feet grows very perceptibly faster. A three or four year old will generally require his shoes to be taken off every three weeks, while a matured horse may go another week.

A set of shoes of good iron will usually bear two removings.

The subject of applying shoes to the feet either in a hot or cold state, is one that has produced much discussion, from which the chief fact elicited appears to be that, when put on hot shoes remain firmer on the feet and are not so liable to be lost, as when the other plan is adopted. This fact would naturally be an object to an owner of a horse with brittle or weak hoofs.

If the crust and heels of a horse's foot be allowed to grow too long, the frog will become diseased or at least will contract and shrivel up, owing to the absence of pressure on it, whose function is to stimulate the secretion of the horn which forms the substance of the frog. In such a case, the means to be adopted for curing this diseased state, should be the very opposite to that which induced it, namely, to allow the frog as much pressure as possible, by lowering the heels and crust as far as it is compatible with the horse being able to walk barefoot without tenderness. No shoes should be applied till the frogs have recovered their natural size, and the horse ought to get lots of walking exercise on soft ground. If the feet be brittle tips may be used.

When a horse goes barefoot, the crust of his hoofs should be rasped round to prevent them splitting.

By proper shoeing we can generally prevent speedy cutting, which is the act of a horse striking the inside of one foreleg close below the knee with the inside edge of the shoe of the opposite fore foot. Horses that turn out their toes (which is due to the pasterns being "dished" outwards,) are very prone to speedy cutting. It is difficult to ascertain the exact manner speedy cutting occurs, for as this happens in the fast gallop it is impossible for the eye to follow the action of the horse; this can only occur at a moment when the hit leg is on the ground, while the other is in the air; for were it otherwise no system of shoeing could diminish the liability of a horse to speedy cutting, because the shoeing itself can only affect the position of the leg when it is actually on the ground, while the moment it is raised, the effect of the shoeing in lessening its liability to be struck by the other leg must be inert. This is plain enough when we consider that by keeping the inside quarter of the hoof higher than the outside, we can generally prevent a horse from getting cut on that leg, as the direct action of this is to counteract the "dish" of the pastern and thereby to remove the knee from the line of the stroke of the other leg. If the hoof will allow of it, is always better to alter the level by rasping down the crust and sole on which the outside half of the shoe will rest, lower than on the inside, than by using a shoe of which the inside half is thicker than the outside half.

The same method of shoeing will also generally prevent "brushing."

If we carefully observe the action of the forelegs of the horse in the canter, we will see that the leg that is not leading comes first on the ground in advance of the other, and immediately afterwards the hoof of the latter passes by the cannon bone of the non-leading leg (which at that moment is on

the ground) in front of whose hoof it is placed, though of course in its own line of progression. It is evident that if speedy cutting occurs, it must happen at the very moment when the hoof of the leading leg passes close below the knee of the non-leading one, and consequently the latter's liability to be struck can be lessened, or altogether obviated by removing his knee and cannon bone out of the line of the stroke of the leading leg, by lowering the outside of its hoof.

Plates are simply very light shoes, which are intended to last for only one or two races. They are generally fixed on the morning of the day before the race, and the horse is then sent for a short gallop to see that all is right. This constitutes the work he should have on that day. A light plate for an Arab will weigh about $2\frac{3}{4}$ oz. and be about half an inch broad. But as most horses out here have to run at different meetings, that follow each other in quick succession, I much prefer using a stouter plate, in fact a compromise between the plate and shoe used in training. Such an one for an Arab will weigh about $3\frac{1}{2}$ oz. and ought to last through three week's work and may be made five-eighths of an inch broad all round. Plates and light shoes may have a clip in front for the fore feet, in order to give them additional hold. Nails for plates should be much lighter than those for ordinary shoes.

The Charlier system of shoeing has not been introduced to any extent into this country : it is fully discussed in Mr. Fleming's work on shoeing.

To get ponies, galloways, and horses for "give-and-take" races down to a height lower than nature ever intended them to be, owners have often used the most ingenious expedients. Shoeing *à la* Charlier—with a quarter of an inch allowed for plates—will, of course, be a direct gain of a quarter of an inch. Again a horse will measure lower after a hard gallop than at any other time. But the real art

lies in teaching a horse to measure low, and in the practice of gradually paring his feet down, so that the limit of the sensitive horn may recede as much as possible. A horse's height will only be affected by cutting down the heels, for the length of the toes makes no difference. Better, indeed, never run a horse at all, than to be obliged to resort to such expedients. Teaching a horse to measure low, is simply the art of making a fool of the person appointed at a race meeting to determine horses' heights, and to do this the owner has previously to train his animal to stand quiet in the most advantageous position. Some horses measure lowest with their heads down, others with them up, and all with their fore legs wide apart as viewed in front. This dodge often passes muster, though of course no one would fail to see, if a horse's forelegs were stretched out as viewed in profile.

When an animal is well within the *limit* of height, it is the most foolish policy to try to gain a small allowance of weight, by even very slight paring down, if that cutting may bring the foot out of its natural slope, or be liable to make the horse go tender; for a quarter of an inch off a horse's heels more than ought to be taken off, will often make quite a 7lbs. difference in his style of going; in this case the owner should make up for the cutting down by using extra thick heeled shoes, in which the horse cannot move as freely as in ordinary light ones: but if to save weight in iron he use plates he will seriously risk his animal's suspensory ligaments by the strain entailed upon them from the abnormal slope of the profile of the foot. To obviate this strain as much as possible, the toe also should be cut down as far as practicable. I need hardly remark that the thick heeled shoes would be put on *after* the official measurement took place, for that once done holds good for the meeting. By the C. T. C. Rules, 4lbs. is allowed for each $\frac{1}{2}$ inch in galloway and pony races.

CHAPTER X.

WASTING.

MEN waste for riding, either to keep down their weight for a considerable time, as jockeys have to do during the racing season, or for one particular race or meeting. In the first case a man should rely on banting and exercise, as physic and heavy sweats continued for a long time would destroy his strength and nerve. In training the diet should be limited to fresh meat boiled, grilled, or roast—on no account stewed or fried; plain boiled fish without sauce, dry hard biscuit and toast, with a small variety of vegetables that do not put up weight, such as onions, which are particularly useful in this respect, but on no account should sauce or butter be used with them. Salt ought to be the only condiment allowed. Jockeys generally confine themselves to cold meat, and biscuit, and this food palls so quickly on a person's appetite that he will eat less of it than of almost any other kind. Bread, potatoes, cauliflower, peas, rice, butter, milk, fat of every kind, soups, puddings, sugar, sweets, stews, minces, and everything containing fat, sugar or starch should be carefully avoided. It is a well-known fact, that to keep in good health one should eat daily a certain proportion of vegetables in order that certain salts contained in them may be furnished to the system; by cooking, a large proportion of these salts are lost, and quantity being an object a man in training should eat every day a small quantity of lettuces, raw tomatoes, onions, celery, cucumber, radishes or cress, or in their place a little fresh fruit, with the exception of plantains, which ought to be avoided as carefully as potatoes or bread.

The drink should be restricted to water, weak tea without milk or sugar, light claret and water, or very weak brandy and water. The weaker these are taken the better, for tea, coffee and alcohol check waste of tissue. A man in strict training should on no account take ærated waters, for they are so refreshing that it is hard to resist taking more than is advisable. As fluid of any sort puts up weight, a man should only drink that kind of which a little will quench thirst. I need hardly say that the less spirits a man takes the steadier will be his nerves. If this regimen be strictly adhered to, the jockey need do nothing further than to take lots of exercise. Riding four or five training gallops every morning will get a man fitter than any thing I know; but this is a luxury heavy weights cannot indulge in, so they ought to walk; play racquets, cricket, and take all the healthy exercise they can get, whether on horseback or on foot, short of going in for regular sweats. A couple of Cockle's pills or a sedlitz powder, may be necessary now and then.

The following would be about the correct style of daily food. A steak or a couple of chops—done on the gridiron, but not on the frying pan—a couple of slices of dry crisp toast, a few plain boiled onions, a bunch of radishes or cress, or a stick of celery or a couple of tomatos, and a cup of tea, without milk or sugar, for breakfast. A slice or two of cold meat, a hard biscuit and a glass of water for lunch. A couple of slices from a joint, plain boiled onions, a biscuit, a stick of celery and half a pint of claret with water for dinner. By pursuing this system, with plenty of ordinary exercise, a man in a month or so will gradually get down to within 5 or 6 lbs. of his lightest riding weight which, if required, can be attained by a couple of sweats and a dose of physic. Dignum, the well-known and accomplished jockey, followed very much this system, and he has had to waste harder

than any other jockey in India. The fact of his being able to ride a racing weight for years, without losing his nerve, is entirely due to his extraordinary, steady self-denial. He has told me that when wasting, he has often found that three or four raw eggs mixed up with vinegar, have allayed his hunger and kept up his strength, without putting on weight, better than anything else.

But if a man has to get off say 21 lbs. in ten days or a fortnight, stronger measures will have to be adopted. Banting, as before described, must be followed, though a man should dispense with his frugal lunch, and eat and drink as little as he can manage to do with at breakfast and dinner. The training should commence with a strong dose of physic, say three Cockle's pills at night and an ounce of Epsom salts next morning. On that day nothing beyond a quiet walk should be done; but on the next and succeeding days he should take a sweat, and about every third day an ounce of salts the first thing in the morning. On the day physic is taken a long walk without sweaters will be enough. The sweat should be arranged in something of the following fashion: A pair of long knickerbocker stockings, over which a pair of thick worsted ones and a pair of boots for the feet. A pair of drawers and a couple of pairs of thick cloth trousers for the legs. A jersey, three flannel shirts, a thick cummerbund, a couple of warm waistcoats, two shooting coats and a great coat for the body. A pair of warm gloves for the hands, a large woollen comforter wrapped round and round the neck, and a couple of large cloth caps pulled down over the ears, will do as far as clothing is concerned. Great care should be taken that every part be protected from the air, for even if the hands or neck be left bare, perspiration will be materially checked. With this amount of clothes on a warm day, most men will

find that, a sharp walk of four miles will be as much as they can do without overtaking their strength. On returning from this walk a man should lie down with a lot of rugs heaped over him, and remain thus as long as he can, which usually will not be more than ten minutes, or a quarter of an hour.

The heavy, oppressed feeling about the heart is the most trying thing in a sweat. After the rugs and clothes are taken off, the man should be quickly dried, and then have a warm bath, and after that he may have a cold douche if his liver be in good order. He should not dress till he is thoroughly cool, and ought to forbear taking anything to drink as long as he possibly can after a sweat, for the more heated the body is the more rapidly will it absorb fluid.

If a man has to sweat often, instead of using waistcoats he should have a thick flannel jacket made for the purpose, fitting tight over the flannel shirts and buttoning high and close under the chin.

If a man has hacks to ride, and is unable to walk, he can take a sweat on horseback by putting on clothes as before, and then going for a sharp ride, but this, though pleasanter, will not be as effective practice as walking.

A sweat like that I have described will take from 4 to 7 lbs. off an ordinary man, provided there be little or no wind, which most materially prevents perspiration. When taking a sweat in this country one should avoid the sun as much as possible, for few things tend to make one so nervous, as hard exercise when exposed to its influence. Having one's nerves in good order is of far more consequence than being able to get the exact weight. This particularly applies to men who ride their own horses, for jockeys have little option in the matter, and owners are often foolishly exacting on this point. I am quite certain

that on the flat a jockey can ride quite 5lbs. better when he is fit and well, than he can when he is weak from overtraining, while in steeplechasing the difference is one of stones and not of pounds.

A lamp bath is often taken instead of a regular sweat, if the man in training be lazy or not able to walk. It is arranged thus: Three or four small saucers full of oil with lighted cotton wicks in them, are placed under a chair on which the man sits, care being taken that a couple of thick towels doubled are put under him. He should have no clothes on, but should have several rugs and blankets wrapped round the chair and himself and brought tight under it, so that the heated air may not escape. A waterproof sheet considerably assists this operation. A little practice is required to teach one how to get the rugs and blankets fixed. If the hot air be properly kept in, the person taking this bath will break out into a profuse perspiration in about ten minutes, and this may be continued for an hour, which will be about the limit that most men can bear.

A lamp sweat will take little more than half the weight off that a regular sweat will do, for its action is confined to the pores of the skin alone, while in the other there is a general waste of the body, the lungs aiding very largely in carrying off the *débris* caused by the exercise taken, while the quickened breathing rapidly gets rid of this disintegrated tissue, and pure blood is sent to the heart and from it to the system generally. In a lamp bath the action of the heart after a short time becomes tumultuous and the breathing laboured, from the lungs being gorged with insufficiently ærated blood, and if this be continued much further, its action will become more and more feeble, till at last faintness occurs. By persisting in these sweats, the heart is very liable to become permanently injured.

I need hardly say that any mode of wasting however good, must prove injurious if carried to excess ; but in ordinary cases the system I am now advocating will prove about the best that can be adopted.

The more a man trusts to *hard exercise and moderation in food* the "fitter" will he be to ride ; while banting, sweats, and physic should only be employed, when time is limited, or the amount to be got off is considerable.

A man in training should weigh himself every day to see how the wasting gets on. A Salter's spring balance noting $\frac{1}{2}$ lb. up to 200lbs. is a cheap and most portable machine. I, as well as others, have often remarked that in training a man will, if the race for which he has trained be held in the evening, waste off a couple of pounds on that day without physic or sweating. I suppose the anxiety one feels has something to do with this.

A man can ride in a light saddle (2 or 2 $\frac{1}{2}$ lbs.) a little less than what he will weigh in ordinary clothes.

If a jockey be at all in hard condition he need allow nothing for wasting during a race on a hot day, for the horse will sweat more into the saddle cloth or pannel than the jockey is likely to lose.

CHAPTER XI.

RACE COURSES.

On keeping a galloping track in order—Effect of ground—Measuring Courses—Lengths of different Courses in India.

THE climate and the hardness of the ground are the two great difficulties a trainer has to contend against in India. When a race course is on the ordinary soil we meet with in this Presidency, which has generally a substratum of *kunkur*, nothing but constant manuring and picking up can keep it in order. All this costs so much, that the Clerk of the Course (unless the Race Fund be particularly rich) may be well contented if he can keep a galloping track even if only four yards broad in good going order all the year round. Just before the close of the rains, he should take advantage of the softness of the ground to plough it up. It will cost about Rs. 30 a mile to plough and harrow a course 40 feet broad. If the ploughing be delayed, nothing but the pick-axe will touch hard soil. I have found at Cawnpore that it costs about Rs. 40 a mile to get a track four yards broad picked up (when the ground has been hard) to a depth of about four inches, and to get the clods thoroughly pulverised, which can be done by boys or women at half price (six pice a day). This should be done as the picking up proceeds, for if left for a few days exposed to the sun the clods will become almost as hard as stones. The best pick-axes for this work are those supplied by Government to Regiments among their entrenching tools. It is no use putting down litter or tan till the ground be thoroughly loosened, for, till it becomes so, manure would have as little chance of working into and amalgamating with it, as it would on a metallised road. On a track

four yards broad, such as I have described, it would take 2,000 maunds of tan or 1,500 maunds of litter to lay down a mile properly. The cartage of this will come to about Rs. 3 a hundred maunds, when brought from a distance of three miles. Spreading the litter or tan will come to about eight annas a hundred maunds. Litter can sometimes be got for the mere carting of it away from Artillery or Cavalry lines ; but when it is sold, its price will not exceed eight annas a cart-load of about 20 maunds. Old and thoroughly decomposed litter is the best. New litter always contains a large quantity of particles of undigested grain that have passed through in the dung of the horses, while the presence of these particles will certainly attract numerous field rats, that burrow all over the course and give a great deal of trouble before they can be exterminated, this is best done by filling the holes with water and killing the rats as they come to the surface.

The Indian sun bakes the earth hard, and seems to burn up in a very short time whatever kind of manure be put on it ; nothing but constant picking up and laying down litter, sand or tan at least twice a year will keep a galloping track in anything like good order.

By constant manuring, a thin layer of good soil will in time be formed, but if the track be neglected for but a couple of years, it will become as hard as a turnpike road.

The trainer should remember that, a heavy holding course is infinitely more dangerous than a hard one to give horses fast work on, on account of the greater strain the former throws on the suspensory ligaments. In slow work it does not matter, for the fetlock joints in this case descend less than in fast, and consequently there is less tension on those parts. The beau ideal of a galloping track is an elastic one, that will neither jar the joints by

hardness like on a turnpike road, strain the suspensory ligaments by stickiness like on soft clay, nor shorten the stride and make it dwelling by deadness like on sand.

A heavy course is particularly trying to a horse with oblique, and a hard course to one with upright pasterns.

A galloping track such as I have mentioned and $1\frac{3}{4}$ mile round will cost about Rs. 400 a year to keep in good going order.

No race-course or galloping track should be less than $1\frac{1}{4}$ mile round.

A distance is 240 yards.

On the race-course, where the horses are trained, one should erect a rubbing-down shed beyond the winning-post and on the inside of the course. These sheds are made of split bamboo and *phoos* (Hind., dry, withered straw). A couple of stalls roofed over in case of rain, with a small enclosure in front to keep off people troubled with curiosity, will cost about Rs. 16. *Ghuramee* (thatcher) is the name of the caste that makes this *chhuppur* work.

When a course is intended for racing in the evening, the Stand should face to the east, and *vice versa*.

There should be, near each Stand, a piece of ground carefully flagged and made level, for measuring horses on.

Race courses are supposed to be measured on a line 5 feet from the inner edge all round; but practically the best plan, which was lately pointed out to me, is to measure close to the inside and then add to the length obtained $10\frac{1}{2}$ yards, under the assumption that the course is a circle, which is near enough for all practical purposes. This mathematical problem I leave to my readers to work out for themselves. A surveyor's large perambulator is more correct and expeditious than the ordinary chain.

LENGTHS OF RACE COURSES.

	Miles.	Fur.	Yds.		Miles.	Fur.	Yds.		
<i>s</i> Agra <i>r</i>	..	1	4	0	Jessore	..	1	4	11
Abmedabad	..	1	4	55	<i>s</i> Jhelum	..	1	2	0
<i>p</i> Ahmednuggur <i>r</i>	1	3	0		Jorehaut	..	1	1	125
<i>s</i> Allahabad <i>l</i>	..	1	2	147	<i>s</i> Jubbulpore <i>r</i>	..	1	0	126
<i>s</i> Allygurh <i>l</i>	..	1	0	0	Jullundur <i>r</i>	..	1	3	5
<i>s</i> Assensole <i>r</i>	..	0	6	217	<i>s</i> Kamptee <i>r</i>	..	1	4	92
<i>s</i> Bangalore <i>r</i>	..	1	2	0	Kurrachee	..	1	3	45
<i>s</i> Bareilly <i>r</i>	..	1	6	45	<i>s</i> Lahore <i>l</i>	..	1	6	20
Baroda	..	1	4	10	<i>s</i> Lucknow <i>l</i>	..	1	7	154
<i>p</i> Barrackpore <i>r</i>	..	1	4	37	<i>p</i> Do. Cesarewitch <i>l</i>	2	2	29	
Belgaum	..	1	2	63	<i>p</i> Do. Cambridge-				
Berhampore	..	1	7	28	shire <i>l</i>	..	1	0	24
<i>p</i> Bhawulpore	..	2	0	0	Madras <i>r</i>	..	1	4	0
Bolarum	..	1	3	160	<i>s</i> Meerut <i>r</i>	..	1	5	46
<i>s</i> Bowenpilly <i>r</i> (3					<i>p</i> Mhow <i>r</i>	..	1	4	89
miles from Secun-					<i>s</i> Mooltan	..	0	6	134
derabad, monsoon					<i>s</i> Moradabad <i>r</i>	..	1	4	118
race course) <i>r</i> ..	1	1	204		<i>s</i> Morar	..	1	4	10
Burdwan	..	1	3	95	<i>*s</i> Mowl Alee <i>r</i> (4½				
<i>p</i> Byculla <i>r</i>	..	1	4	67	miles from Secun-				
<i>p</i> Cachar	..	0	4	57	derabad, Hydera-				
<i>s</i> Calcutta <i>r</i>	..	1	6	21	bad races held				
<i>s</i> Calcutta St. Legerr	1	6	132		there)	..	1	4	60
<i>s</i> Cawnpore <i>l</i>	..	1	5	148	<i>s</i> Mozufferpore <i>r</i> ..	1	3	202	
<i>s</i> Chudderghat <i>r</i>					Muttra	..	1	4	0
(8 miles from					Mysore	..	1	7	110
Secunderabad)	0	7	107		<i>p</i> Nusseerabad (Raj-				
<i>p</i> Chupra <i>r</i>	..	1	4	146	pootana)	..	1	3	45
Cuttack	..	1	5	83	<i>s</i> Peshawur	..	1	4	106
<i>s</i> Dacca <i>r</i>	..	1	3	140	Poonah <i>r</i>	..	1	4	65
Debrogurh	..	1	4	0	<i>p</i> Purneah	..	1	4	0
<i>p</i> Deyrah <i>r</i>	..	1	4	192	Rajkote Kattywar	1	3	120	
<i>s</i> Dharwar <i>l</i>	..	1	1	58	<i>p</i> Rampore Beaulio	1	2	0	
<i>p</i> Dinagepore	..	0	7	0	<i>s</i> Rawul Pindee..	1	3	49	
<i>s</i> Dum-Dum	..	1	0	200	Sealkote <i>l</i>	..			
<i>s</i> Do. Steeplechase	2	1	80		Setapore	..	1	4	11
<i>p</i> Ferozepore <i>r</i>	..	1	6	0	<i>p</i> Silligoree	..	1	0	13
<i>p</i> Do. Steeplechase <i>r</i>	2	4	0		<i>s</i> Simla (about)	..	0	7	0
Fyzabad <i>r</i>	..	0	7	187	<i>s</i> Sonopore <i>r</i>	..	1	4	158
Goruckpore	..	1	3	99	<i>s</i> Trichinopoly	..	1	2	85
Hyderabad (Sind)	1	4	7		<i>s</i> Umballa <i>l</i>	..	2	1	45
<i>s</i> Jacobabad	..	1	6	25	Vizianagram	..	1	3	107
<i>s</i> Jamalpore	..	1	0	0	<i>s</i> Wellington <i>r</i>	..	0	5	20

* There is a permanent Steeplechase Course at Mowl Alee.

The letters *r* and *l* distinguish right and left handed courses, while the correct lengths of those marked *s* have been most kindly furnished to me by the either the Honorary Secretaries or Stewards of these meetings, and in two or three cases by friends on the spot during the commencement of the racing season of 1874-75. Those marked *p* I have taken from published prospectuses, and the remainder from the *Oriental Sporting Magazine*.

CHAPTER XII.

TRAINERS AND JOCKEYS.

THE chief public trainers in the Bengal Presidency in this year of grace, 1875, are John Wheal, Calcutta; Donaldson, Dignum, and Bowen; of Deyrah Doon.

Formerly, Wheal was well known in Ireland and Wales as a bold and finished Steeple-chase rider; but for several years past he has been training out here. He managed Mr. Seventanks' stable, but since the Baboo died, his chief victories have been with his own mare Phillipine and Mr. Maitland's Kingcraft. His natural cleverness, long experience, and the fact that he is never above personally looking after his horses, have made his success most marked. Finch, the well-known light weight, rides for him.

W. Brewty is well-known on the Bombay side as a sound trainer and perfect horseman in every respect. His wonderful knowledge of Arabs may be attributed to the practice he had when in charge of Dr. Campbell's Mysore stable for many years. He rode the celebrated Greyleg in all his races, except during one season when absent in England.

Donaldson began training with Mr. Le, and since he left the latter, he has been principally connected with the "Queen's Own" horses. Karpos' successes during the palmy days of the Benares stable were entirely due to Donaldson's good management. However, he is better known as a most successful light weight, and the best man in India at getting a start.

Dignum has been for many years in this country and trained for the owner of Morning Star when that famous mare was alive. He has profited by the long practice he has had with such large

strings as those of W.W., B.W., and Mr. Le. His extraordinary self-denial and powers of wasting enable him to ride 9st. 3lbs., but to do this he has to work harder than any other jockey in India. He is a very fine judge of pace.

Bowen is a most trustworthy jockey and attentive trainer; the good form in which he brought out Corone for the Calcutta Derby of 1873 reflected the highest credit on him.

There is not a man in India who knows how to ride a horse or to train one better than Jack Irving, but owing to his putting on weight, and to the breaking up of several large stables, he has had few chances lately. He is a splendid judge of pace, and is a most dangerous man at a finish.

Mr. Joseph has given up riding for many years, almost since his name and that of the "flying mare" Nancy were so often coupled together in victory. He is a most accomplished trainer and perhaps his most brilliant success was with Akbar, when that horse won the Calcutta Derby of 1869, beating sixteen others.

The principal English and Colonial jockeys in India, and their lowest riding weights are as follows:—

English and Colonial Jockeys.

		st.	lbs.		st.	lbs.
W. Brewty	...	8	2	Henderson	6	10
H. Hackney	...	8	7	O. Dignum	9	3
T. Donaldson	...	8	0	N. Vinall	7	12
G. Gooch	...	7	10	H. Bowen	8	0
J. Irving	...	8	12	H. Ryder	8	0
S. Hastings	...	8	10	T. Tingey	8	4
F. Finch	...	7	12	M. Tyrell	8	3
T. Arnett	...	9	4	Stratford	7	2
H. Williamson	...	7	12	Walsh	8	2
W. Blackburn	...	8	0	Thorpe	8	0
H. Clark	...	8	5	Kenny	9	12
W. Cavanagh	...	8	7	Cozens	8	2
Walker	...	6	2	Williams	8	0

It would be an invidious task to give an opinion as to who is the best among these accomplished horse-men, for such most of them are. But as far as reputation goes, I may say that Donaldson is considered the quickest at a start, Gooch the finest judge of pace, Brewty the best on an Arab, Irving the strongest at a finish, and Hackney, perhaps, the best man all round. Finch is a very steady, clever jockey ; he rides well, and is always cool and patient. Hastings is well-known through India as being quite first class in his profession. Ryder and Irving are also very good across a country.

Natives.

	Lowest Weight.			Lowest Weight.	
	<i>st.</i>	<i>lbs.</i>		<i>st.</i>	<i>lbs.</i>
Oomer	6	10	Kurreem	6	10
Jaffir	5	13	Punchoo	7	2
Ramchurn	6	7	Buck	7	2
Mahomed	8	0	Ruper	7	9
Kairoo	8	0	Kadir	7	7
Rowjee	7	8			

Oomer is a Bombay lad ; he is considered by all the professionals to be the best of his class and very nearly equal to themselves.

Jaffir's forte is making the running. He won laurels for many years with B.W., and it was entirely owing to his very light weight that old "Van" kept on his legs so long. In 1873 he eclipsed all his previous efforts by winning the Colonials and Viceroy's Cup on Kingcraft.

Ramchurn is a very steady, good boy.

Mahomed some years ago, when he was with Joseph, was one of the best native jockeys in India, but his service with the late Nawab Syud-ud-Doulah of Lucknow did not improve him.

Five or six years ago Kairoo used to ride admirably across country, especially on that fine old chaser

Objection late Tartar, and also very well on the flat ; but since he left the Jullundur stable (of those days) his form and nerve seem to have deserted him, and since Mr. Le's stable, for which he used to ride, was broken up, he is seldom seen in the saddle. Public trainers charge Rs. 60 a month for each horse, this includes every thing except physic and travelling expenses.

A first-class jockey, who trains and rides for one master, would expect a salary of from Rs. 150 to Rs. 200 a month, with winning and losing mounts, though the latter might not be charged for in small events.

Jockeys' fees are eighty rupees for a winning, and forty-eight for a losing mount in Bengal ; while in Bombay and Madras I believe they are one hundred and fifty. Natives charge fifty and twenty-five.

CHAPTER XIII.

LOTTERIES—PARI MUTUELS.

THE number of tickets and their price in lotteries vary, though at the principal meetings they are generally fixed at 100 and Rs. 10 respectively.

The Honorary Secretary of the races, or other person appointed to manage the lotteries, should, on commencing, first write down the tickets taken by single individuals, and then those taken conjointly; the practice is to throw with dice for tickets, the loser paying for them, though they equally share the amount obtained for the chance of any horse, that any of their tickets may draw. Not till all the tickets that can be disposed of conjointly, are given out, should sweeps be allowed to take place, as they are a last resource to fill up a lottery paper: for somehow or the other people will rarely take tickets, either on their own account or conjointly after sweeps have commenced. A lottery should be made out on a large sheet of foolscap. Generally on the first and part of the second page the tickets are written down. At the end of the second page there is a form for recording the result of the drawing, and on the third, one for showing the debit and credit of each person, may be given. The latter form is now in very general use.

On the following pages, I give an illustrative lottery paper for a race in which we may assume that five horses, *viz.*, Sam, Jack, Lucy, Ruby, and Brilliant, run; that their owners are Messrs. Jones, Williams, Payne, Thomson, and Smith respectively; that there are 50 tickets at Rs. 10 each, and that Lucy won. From the total amount of the lottery 5 per cent. is deducted for the benefit of the race funds.

Ghorapore Spring Meeting—1874.

LOTTERY ON THE DERBY—PRICE OF TICKETS Rs. 10.

No.	Names.	No.	Names.
1	} Jones	26	} Thompson, Jones.
2		27	
3	} Williams	28	
4		29	
5	} Simpson	30	
6		31	} Smith, Thompson.
7	} Payne	32	
8		33	
9	} Johnson	34	
10		35	
11	} Thompson	36	} Williams.
12		37	
13	} Smith	38	} Simpson, Williams.
14		39	
15	} Thompson	40	} Thompson, Smith.
16		41	
17	} Jones, Thompson	42	} Thompson, Williams.
18		43	
19	} Thompson, Williams	44	} Williams, Thompson.
20		45	
21	} Thompson, Williams	46	
22		47	
23	} Johnson	48	
24		49	} Thompson, Smith.
25		50	

RESULT OF DRAWING.

No.	Names of Drawers.	Horses.	Buyers.	Price.
47	Thompson, Smith ...	Sam ...	Smith, half owner ...	120
21	Thompson, Williams...	Jack ...	Thompson ...	90
12	Johnson ...	Lucy ...	Williams ...	70
46	Williams, Thompson...	Ruby ...	Thompson ...	40
5	Simpson, Williams ...	Brilliant ...	Williams ...	40

DEBITS AND CREDITS.

Names.	Price of Tickets	Bought.	Drew.	Lottery.	+	—
Jones ...	30	....	.....	.....	...	30
Williams ...	70	220	85	817	612	...
Simpson ...	50	10	20	.....	...	40
Payne ...	20	....	.....	.....	...	20
Johnson ...	40	120	70	.....	...	90
Thompson ...	220	250	125	.....	...	345
Smith ...	70	120	60	.....	...	130
				Percentage.	43	
	500	720	360	817	655	655

On the lottery paper, which I have given as an illustration, we see that the Nos. 12, 25 and 36 were taken by single individuals, and that there was a sweep of two tickets per man for Nos. 1 to 11 and for 13, 14 and 15, the break having occurred by Johnson having taken No. 12 on first going off; while the remaining tickets were taken conjointly. In the sweep Smith is shewn to have taken two tickets.

By the C. T. C. Rules an owner is entitled to claim one-fourth of his horse's chance (taking that proportion of risk as well as gain) immediately on his being sold. The owner's share is the only one allowed to be recorded on a lottery paper, whatever part be taken, though of course it is optional to the buyer to give more than one-fourth if he chooses to the owner, in case the latter asks for it.

On the second page we see that half of Sam is debited to Johnson, the owner of that horse.

The percentage and value of the lottery is thus calculated :—

Price of tickets	...	...	...	500
Sale of horses	...	...	...	360
5 percentage	...	...	...	43
Value of lottery	...	...	...	817

This last item we see credited to Williams' account on the third page. I have taken the percentage at 5 per cent. which is the usual amount deducted to go to the benefit of the Race Fund.

By using the form of "Debits and Credits" we ensure correctness, which is proved, firstly by the addition of the column under "Price of tickets" amounting to their gross value, and secondly, by the total sum under column "Bought" being exactly double that under "Drew"; for the purchaser of a horse's chance pays double the amount he is sold for, first to the drawer and then into the lottery. The final step in proving the accounts, is to see that the total winnings plus the percentage is equal to the total losings. When this system is employed, a form like that below should be used to show the total debits and credits on each day's racing. I here assume that there were four lotteries held and that twelve persons took part in them.

Account of Lotteries held on 1st Day's Racing.

Names.		1st Lottery.	2nd Lottery.	3rd Lottery.	4th Lottery.	+	—
Williams	...	— 80	+ 1610	— 850	+ 300	980	...
Brown	...	— 10	— 40	— 50	— 800	...	900
Stone	...	— 500	— 320	— 100	+ 1400	490	...
Thompson	..	+ 1450	— 400	— 80	— 200	770	...
Lake	...	— 50	— 180	— 20	400	150	...
Green	...	— 30	— 60	+ 400	— 400	...	90
Baker	...	— 100	— 10	— 100	— 150	...	360
Grey	...	— 200	— 300	— 40	— 400	...	940
Boyd	...	— 50	— 200	+ 750	— 150	350	...
Smith	...	— 320	+ 100	— 30	100	...	150
Payne	...	— 150	— 50	— 50	— 100	...	250
Reid	...	— 50	— 230	— 10	— 100	...	390
•					Total Per- centage...	350	
Percentage		90	80	80	100	3080	3080

Nothing could be less liable to error than the system that I have described, and this quality is a most valuable one, when a mass of accounts have to be got through in a short time, which is always the case at a race meeting. Its only fault is that, at a settling if persons are not acquainted with its working, reference to the different debits and credits of individuals cannot be so readily made and explanation given as by another system which I shall now describe and which was shown to me some time ago by the then Honorary Secretary at Meerut. The working of the latter system is so self-evident that I need only give the form for the accounts of each day's racing. Its only fault is that error cannot be readily checked. To save room I give the form for only four lotteries, though of course it can be made out for any number.

In lottery accounts the debits consist of price of tickets and purchase of horses ; the credits of horses drawn and lotteries or parts of lotteries won : by this system these items are arranged in the most simple manner for reference and computation.

Formerly the ledger system was in general use for keeping lottery accounts. It consisted of entering each person's name, who took part in the lotteries, in a ledger, giving one page to his debits and the other to his credits. But it is far too cumbersome for the present day, for by it accounts cannot be made up in sufficient time to afford a settling immediately after a meeting is over: and every Honorary Secretary knows, if this be not done, how extremely difficult it is to get a setting off satisfactorily. Among the residents of a station this remark does not apply, but at a large meeting where the bulk of the plungers are here to-day and gone God knows where to-morrow, it is most essential that every thing should be settled as quickly as possible, for absentees find it hard to believe that they have won so little or lost so much.

The lottery odds against a horse will be: Price of tickets + price of all the horses — discount, to double price of the one particular horse.

Thus in the case we have already given the odds against Jack are $500 + 360 - 43$ to 180, or 817 to 180 or about $4\frac{1}{2}$ to 1.

Suppose, that by a private arrangement the buyer of Lucy, who won the race, had given away one-fourth of her, then the quarter winnings would be thus calculated:—

Gross amount minus discount ...	...	817
Lucy's doubled price ...	...	140
	...	4)677
One-fourth share of winnings ...	...	169

Pari Mutuels can never be an adequate substitute for lotteries in this country, for the simple reason that they entail the trouble of exercising one's judgment in trying to spot the winner, instead of leaving the matter to chance. Scores of men gamble in

lotteries, who do not know one horse from another, possibly not even their names, but they like a quiet "punt" with the chance of drawing a horse; they are the true supporters of lotteries, but as they do not care for racing, it would afford no interest to them to back one horse, in preference to another, in a *Pari Mutuel*.

Pari Mutuels are managed out here in the following manner. Near the Race Stand is fixed a long box divided into partitions, in each of which there is a slit like those in letter-boxes. Outside each partition is written the name of a race, in the order they are to be run. The person managing the *Pari Mutuel* is provided with cards printed in the following form :—

ZEENABAD AUTUMN MEETING—1874.	
Tickets—Rs. 5.	
Name of Race	_____
Horse backed	_____
No. of tickets	_____
Signature of backer	_____

Having received a card, the intending backer fills it in according to his fancy, and places it, through the slit, into the partition named or numbered for the race on which he wishes to invest. This partition is closed on the horses arriving at the starting post, after which no more cards can be put in, and after the day's racing the amount invested on the losers in each event is divided among those who backed the winners of those respective races, after deducting a percentage, usually 5 per cent., for the benefit of the Race Fund. Let us assume that in one of the races the winner was backed by A for Rs. 10,

by B for Rs. 25, and by C for Rs. 15, and that the other horses in the same race had been backed for Rs. 160. The total here would be Rs. 210 from which to calculate a percentage of Rs. 10 at 5 per cent. Deducting this Rs. 10 from Rs. 160 amount lost, would leave Rs. 150 to be divided between A, B, and C, and they would get respectively Rs. 30, Rs. 75, and Rs. 45.

HINDUSTANEE STABLE VOCABULARY.

THE following, with the exception of names of diseases, colours, and some technical expressions, are words of common use in the stable which any syce will understand. In order to render the pronunciation easy to those unacquainted with the language, I have written the vowels as they are pronounced in the following words:—

a as in "star" o as in "Tore" oo as in "Poor"
 e "écarté" u "Fun" ow "Town"
 i "kin" ú "Pull" y "By"

n should be pronounced like the French nasal n, as in "mon." The t and th represent those hard letters in Hindee, the former of which is identical to the English "t," while the latter approaches that in "Thomas." The r and d are pronounced hard as in English, and rh and dh as these letters aspirated; kh and gh stand for these two guttural letters in Arabic.

PARTS OF THE HORSE.

Back	<i>Peeth</i>	Crust of the	
Backbone	<i>Reerh</i>	hoof	<i>Shakh</i>
Back tendon	<i>Ghūr-nuss</i>	Dock	<i>Sagiree</i>
Bars of the foot	<i>Dohree pūtlee</i>	Ear	<i>Kan</i>
Belly	<i>Pēt</i>	Eye	<i>Ankh</i>
Bladder	<i>Phukna</i>	Eyelash	<i>Buronec</i>
Blood	<i>Khoon</i>	Eyelid	<i>Puluk</i>
Bone	<i>Huddee</i>	Feather (in the	
Brain	<i>Mughz</i>	hair)	<i>Bhownree</i>
Cannon-bone	<i>Nullee</i>	Fetlock joint	<i>Mūttha</i>
Cartilage	<i>Kurree huddee</i>	Fibre, a (of	
Cheek	<i>Gal</i>	muscle)	<i>Résa</i>
Chest	<i>Chhatee or Seena</i>	Foot	<i>Pyr</i>
Corners of the		Forearm	<i>Bazoo or Dund</i>
mouth	<i>Bachh</i>	Foreleg	<i>Hath</i>
Coronet	<i>Mughzee or</i>	Forelock	<i>Chotee</i>
	<i>Bhown</i>	Forehead	<i>Matha</i>

Frog	<i>Pátlee</i>	Nose	<i>Nak</i>
Foam (from the mouth)	<i>Kuf</i>	Nostrils	<i>Nuthna</i>
Gall	<i>Pitta</i>	Palate	<i>Taloo</i>
Gullet	<i>Nurkhura</i>	Pulse	<i>Nubz</i>
Hair (of the mane or tail)	<i>Bal</i>	Pancreas	<i>Libba</i>
Hair (of the body)	<i>Roan or Róm</i>	Pastern	<i>Gamchee</i>
Haw (of the eye)	<i>Butana</i>	Pores (of the skin)	<i>Musam</i>
Head	<i>Sir</i>	Pupil of the eye	<i>Ankh kee pútlee</i>
Heart	<i>Dil</i>	Ribs	<i>Puslee</i>
Heel (of the hoof)	<i>Khoontee</i>	Rump	<i>Pútha</i>
Hind leg	<i>Paon</i>	Saliva	<i>Ral</i>
Hip	<i>Koola</i>	Skin	<i>Chumra</i>
Hock	<i>Kooneh</i>	Shoulder	<i>Phur</i>
Hoof	<i>Súm</i>	Sinews	<i>Nuss</i>
Intestines	<i>Unturee</i>	Sole of the Foot	<i>Dilla</i>
Jaw	<i>Jubra</i>	Stifle	<i>Kúlaba</i>
Joint	<i>Jor, ganth or girah</i>	Tail	<i>Dúm</i>
Kidney	<i>Gurda</i>	Tendon	<i>Py, nussor Puttha</i>
Knee	<i>Ghútna or Zanoo</i>	Temple	<i>Kun-puttee</i>
Lip	<i>Honth</i>	Tooth	<i>Dant</i>
Liver	<i>Kulléja</i>	Tooth (milk)	<i>Doodh-ka-dant</i>
Loins	<i>Kumr</i>	Thigh	<i>Ran</i>
Lungs	<i>Phéphra</i>	Throat	<i>Gulla</i>
Mane	<i>Yal</i>	Tongue	<i>Jeebh</i>
Mouth	<i>Moonh</i>	Tushes	<i>Néshor Khoontec</i>
Muzzle	<i>Thoothun</i>	Vein	<i>Rug</i>
Neck	<i>Gurdun</i>	Windpipe	<i>Hulk</i>
		Withers	<i>Mudow</i>
		Wolf teeth	<i>Chor dant</i>
		Yard	<i>Néza</i>

COLOURS OF THE HORSE.

Bay	...	<i>Kúmyt.</i>
dark	...	<i>Téleeya Kúmyt.</i>
„ with legs black up to the knees	...	<i>Seeah Zanoo Kúmyt.</i>
„ with belly and inside of legs light coloured	...	<i>Kéhur.</i>
Black	...	<i>Múshkee or Kala.</i>
* Brown	..	<i>Lukhowree Kúmyt.</i>
Chesnut (all over)	...	<i>Súrung.</i>
„ with dark mane and tail	...	<i>Kúmyt.</i>
„ (dark)	...	<i>Mowha Súrung.</i>
„ dark, with light mane and tail...	...	<i>Chowdur Súrung.</i>
Cream Coloured	...	<i>Doodheeya Shirgha.</i>
Dun, light, all over	...	<i>Shirgha.</i>
„ with black mane and tail	...	<i>Summund.</i>
„ (black stripe down back)	...	<i>Sélee Summund.</i>
„ (dark with dark points and black horizontal stripes on forearms) ...	...	<i>Kúla.</i>
„ with Zebra marks	...	<i>Kéhuree Kúla.</i>

* NOTE.—Natives rarely distinguish brown as a colour; if ordinary brown they call it *Kúmyt*, if dark *Múshkee*.

Dun, with legs black up to the knees ...	<i>Seeah Zanoo Summund.</i>
„ light greyish dun, with dark mane and tail ...	<i>Boz.</i>
Grey or white, with dark mane and tail ...	<i>Subza.</i>
* Grey flea bitten ...	<i>Mugsee.</i>
„ dappled ...	<i>Gúldar subza</i>
„ dark iron ...	<i>Neela subza.</i>
„ nutmeg ...	<i>Lal subza.</i>
„ with skin black & white in patches	<i>Sunjaf.</i>
Mouse coloured ...	<i>Soor</i>
Piebald ...	<i>Kala abluk.</i>
Roan ...	<i>Gurra.</i>
Skewbald ...	<i>Lal abluk.</i>
Strawberry roan (legs and muzzle white, coat ticked out with white) ...	<i>Cheena.</i>
White (with white hoofs, mane and tail, pink skin and light eyes) ...	<i>Núkra.</i>
White (mane and tail white, skin black)	<i>Súrkha.</i>
Horse with four white stockings and blaze)	<i>Puckkulleeyan</i>

These are the correct Urdoo terms, that are in use among Native Cavalry, &c. Syces have very vague ideas on colour, and generally confine themselves to the following :—

Bay and chesnut	<i>Lal</i>	Grey	<i>Subza</i>
Black	<i>Kala</i>	White	<i>Sufféd</i>
Dun	<i>Summund</i>		

DISEASES, AILMENTS AND DEFECTS OF HORSES.

Anasarca	<i>Tubuk</i>	Cataract (when the lens bulges out)	<i>Phúllee</i>
Asthma	<i>Dumah</i>	Catarrh	<i>Kunar</i>
Blind	<i>Andha</i>	Chest founder	<i>Chhatee bund</i>
Blind of one eye	<i>Kana</i>	Cold	<i>Zúkam</i>
Barbs or paps	<i>Unchhur</i>	Colic	<i>Kúrkúree</i>
Blister	<i>Chhala</i>	Colic (flatulent)	<i>Jowgeera</i>
Boil	<i>Phora</i>	Colic (spasmodic)	<i>Abgeera</i>
Bots (eggs)	<i>Leek</i>	Consumption	<i>Khushkbél</i>
Bots (larvæ)	<i>Bur</i>	Corn	<i>Chhala</i>
Broken wind	<i>Shérdumee kur-na</i>	Cough	<i>Khansee</i>
Bronchitis	<i>Kuf</i>	Cracked heels	<i>Gamchee men Chheewur</i>
Brittle feet	<i>Sum Khara</i>	Curb	<i>Bujr Huddee</i>
Bruise	<i>Chot</i>	Diarrhœa	<i>Dust</i>
Canker of the foot	<i>Kufgeera</i>	Dropped Hip	<i>Kum Koola</i>
Capped hock	<i>Kúhneeu</i>	Dysentery	<i>Pechish or khoo-nee dust</i>
Capped knee	<i>Zanooa</i>	Enteritis	<i>Boghma</i>
Capped elbow	<i>Kheesa</i>		
Cataract	<i>Jula</i>		

* A horse is called Mugsee only after he is 12 years old and the grey in h coat has turned to white, leaving the black specks clearly visible.

Farcy	<i>Zuhirbad</i>	Ringbone (on	
Fever	<i>Tup</i> or <i>Búkhar</i>	forefeet, be-	
Fistula	<i>Nasoor</i>	fore it exceeds	
Flat feet	<i>Chúputee Sám</i>	down to the	
Flatulency	<i>Badee hona</i>	coronet	<i>Ganna</i>
Glanders	<i>Khunak, Gum-</i> <i>nam Badnam,</i> or <i>Bél</i>	Ringbone (on	
		hindfeet)	<i>Pústuk</i>
Goose rumped	<i>Tubur goon</i>	Roaring	<i>Shérdumee kurna</i>
Hide bound	<i>Chirm Khúshk</i>	Sandcrack	<i>Shikak sám</i>
Indigestion	<i>Budhuzmee</i>	Spavin (bog)	<i>Motra</i>
Inflammation	<i>Julun</i> or <i>sozish</i>	„ (bone)	<i>Hudda</i>
Jaundice	<i>Yurkan</i> or <i>kun-</i> <i>wul bad</i>	Speck (in the	
		eye)	<i>Chheent</i>
Lame	<i>Lungra</i>	Splint	<i>Bél huddle</i> or <i>Bér huddle</i>
Lampas	<i>Talooa</i>	Sprain	<i>Moch</i>
Loins, gone in		Strangles	<i>Khúbuk</i>
the	<i>Kumree</i>	Stringhalt	<i>Jhunukhad</i>
Madness	<i>Deewangee</i>	Suppression of	
Maggots	<i>Keéré</i>	urine	<i>Péshab bund</i>
Mange	<i>Khújlee</i>	Surfeit	<i>Gurmee dané</i>
Megrims	<i>Mirgee</i>	Swelling	<i>Wurum</i> or <i>Soo-</i> <i>jun</i>
Mellanosia	<i>Bamunee</i>	Tetanus	<i>Chandnee marna</i> or <i>Pista duhun</i>
Moonblindness	<i>Ruttowndhee</i> or <i>Shub-koree</i>	Thorough pin	<i>Bhubhootura</i>
Navicular disease	<i>Súrun bud</i>	Thrush	<i>Russ úturna</i>
Edéma or swel-		Upright pasterns	<i>Múrghpa</i>
led leg	<i>Feel-pa</i>	Wart	<i>Mussa</i>
Ophthalmia	<i>Ankh úthna</i>	Wen or indolent	
Phneumonia	<i>Zeek nufus</i>	tumour	<i>Russowlee</i>
Pumiced Feet	<i>Khár sáma</i>	Windgall	<i>Byza</i>
Pus, matter	<i>Peeb</i>	Worm in the eye	<i>Moonja</i>
Rheumatism	<i>Baee</i>	Worms (long)	<i>Kénchooa</i>
Ringbone (on		Worms (thread)	<i>Chúunchúna</i>
forefeet around		Wound	<i>Zukhm</i>
the coronet)	<i>Chukawul</i>		

AGES OF THE HORSE.

A colt	<i>Buchhéra</i>	Until two years	
A filly	<i>Buchhéree</i>	old	<i>Nakund</i>
A colt up to one		Do. three years	
month old	<i>Kurra</i>	old	<i>Doék</i>
Do. four months		Do. four years	
old	<i>Sinaya</i>	old	<i>Charsala</i>
Do. eight months		Do. five years	
old	<i>Wastat</i>	old	<i>Punjula</i>
One year old	<i>Surloo</i>	Ten years old	
		and upwards	<i>Mulé punj</i>

MEDICINES, DRUGS, &c.

Acid (s)	<i>Tézab</i>	Alum	<i>Phithurree</i>
Aloes	<i>Elwa</i> or <i>Músub-</i> <i>bur</i>	Anise seed	<i>Sownf</i>
		Antimony (black)	<i>Súrma</i>

Arsenic	<i>Sunkheea</i>	Mustard	<i>Rai</i>
Assafetida	<i>Heeng</i>	Mustard Oil	<i>Surson ka Tel</i>
Blue stone	<i>Neela Tooteea</i>	Neatsfoot Oil	<i>Paé ka Tél</i>
Borax	<i>Sohaga</i>	Nitre	<i>Shora</i>
Camphor	<i>Kafoor</i>	Oil	<i>Tél</i>
Caraway seed	<i>Ajmood</i>	Opium	<i>Afeem</i>
Castor Oil	<i>Réndee ka Tél</i>	Pepper (red)	<i>Lal Mirch</i>
Caustic	<i>Tooteea</i>	Do. (black)	<i>Gol do.</i>
Chalk	<i>Khuree Mittee</i>	Poppy Heads	<i>Post</i>
Chilly	<i>Mirch</i>	Resin	<i>Ral</i>
Croton Bean	<i>Jumalgota</i>	Salammoniac	<i>Nowsadur</i>
Do. Oil	<i>Jumalgoté ka Tél</i>	Salts (Epsom)	<i>Júlabee nimuk</i>
Ginger (green)	<i>Udruk</i>	Soap Nut	<i>Reeta</i>
Do. (dry)	<i>Sonth</i>	Sulphur	<i>Gunduk</i>
Hoof ointment	<i>Súm roghun</i>	Sweet Oil	<i>Meetha Tél</i>
Iron, sulphate of	<i>Huree Kussees</i>	Turpentine	<i>Tarpeen ka Tél</i>
Kerosine Oil	<i>Mittee ka Tél</i>	Venice or crude	
Lard	<i>Soour kee chur-bee</i>	Turpentine	<i>Gundabiroza</i>
Leech	<i>Jonk</i>	Verdigris	<i>Jungal</i>
Linseed Oil	<i>Ulsee ka Tél</i>	Vinegar	<i>Sirka</i>
		Wax	<i>Moom</i>

SADDLERY, HARNESS, &c.

Backband	<i>Barkush</i>	Martingale	<i>Zérbund</i>
Bearing rein	<i>Kuzaae</i>	Nose band	<i>Nas bund</i>
Bellyband	<i>Pétee</i>	Pad (harness)	<i>Chal</i>
Bit (curb)	<i>Duhana</i>	Panel (of a saddle)	<i>Guddee</i>
Breechen	<i>Píshtung</i>	Port of a bit	<i>Jeebhee</i>
Breast-plate	<i>Pesh-bund</i>	Reins	<i>Ras</i>
Bridle	<i>Lugam</i>	Ring (of Martingale, etc.)	<i>Chhula</i>
Browband	<i>Kun sirra</i>	Rosette	<i>Kurn phool</i>
Buckle	<i>Buksooa</i>	Rowel	<i>Phirkee</i>
Collar	<i>Hulha</i>	Saddle	<i>Zeen</i>
Crupper	<i>Dímchee</i>	Saddle covering	<i>Zeen-posh</i>
Curb-chain	<i>Duhana-kee-zunjeer</i>	Saddle dressing	<i>Moomroghun</i>
Girths	<i>Tung</i>	Saddler	<i>Zeen saz or Zeen ka mochee</i>
Girth tugs	<i>Chheep</i>	Saddle-cloth	<i>Tuh-roo, Uruk-geer, numda, myl-khora</i>
Hames	<i>Huslee</i>	Saddle flaps	<i>Dawun</i>
Harness	<i>Saz</i>	Shaft	<i>Bum</i>
Harness, double	<i>Joree ka Saz</i>	Shaft tugs	<i>Choongee</i>
Do. single	<i>Ehla Saz</i>	Snaffle	<i>Kuzaae</i>
Do. Tandem	<i>AgulPichhulSaz</i>	Spurs	<i>Kanté or Múmrez</i>
Head collar or Halter	<i>Núhta</i>	Strap	<i>Tusma</i>
Head stall (of a bridle)	<i>Sir-duwalee</i>	Stirrups	<i>Rikab</i>
Hole (in a stirrup leather, &c.)	<i>Ghur</i>	Stirrup-leathers	<i>Rikab</i>
Holsters	<i>Kubool</i>	Stirrup-locks	<i>Champ</i>
Keeper	<i>Chhula</i>	Surcingle	<i>Balatung</i>
Leading rein	<i>Bagdoree</i>		
Lipstrap	<i>Buhadúree</i>		

Throat-lash	<i>Gultunnee</i>	Trace-bearers	<i>Manik jot</i>
Tongue of a buckle	<i>Buksooa kee sooe</i>	Weight-cloth	<i>Seesa-guddee</i>
Trace	<i>Jot</i>	Winkers	<i>Putta</i>
		Whip	<i>Chabúk</i>

STABLE GEAR AND CLOTHING.

Balling iron	<i>Daroo-kush</i>	Head-ropes	<i>Agaree</i>
Bandages	<i>Puttee</i>	Heel-ropes	<i>Pichharee</i>
Bandage, a wet	<i>Pochara</i>	Hobbles casting	<i>Ghúr puchhar or Lungur</i>
Bedding	<i>Bichalee</i>		
Blanket	<i>Kummul</i>	Hobbles (for the hind legs)	<i>Mújuma</i>
Body-piece (clothing)	<i>Gurdunnee</i>	Hood	<i>Kunsilla</i>
Breast-piece	<i>Chhatee-bund</i>	Muzzle	<i>Chheeka</i>
Broom	<i>Jharoo</i>	Nosebag	<i>Tobra</i>
Brush	<i>Broosh or Koo-chee</i>	Picker (hoof)	<i>Sím-khúdnée</i>
		Roller	<i>Furraakhee</i>
Bucket	<i>Baltee</i>	Rubber	<i>Jharun</i>
Chamois Leather	<i>Sabur</i>	Saddle Stand	<i>Ghoree</i>
Clothing (light)	<i>Thunda Kupra</i>	Scissors	<i>Kainchee</i>
Clothing (warm)	<i>Gurm Kupra</i>	Sieve	<i>Chhulnee</i>
Clyster pipe	<i>Pichkaree</i>	Sweat-scrapers	<i>Pusseena-kush</i>
Comb	<i>Kunghce</i>	Tape	<i>Feeta</i>
Curry Comb	<i>Khurara</i>	Twitch	<i>Kuchmal or Poojmal</i>
Gloves made of hair for grooming	<i>Huthee</i>	Wisp	<i>Koocha</i>

FOOD.

Barley	<i>Jow</i>	Oats	<i>Jy</i>
Beans	<i>Sén</i>	Rice in (husk)	<i>Dan</i>
Bran	<i>Chokur</i>	„ (uncooked)	<i>Chawul</i>
Carrots	<i>Gajur</i>	„ (cooked)	<i>Bhat</i>
Flour (coarse)	<i>Ata</i>	Rice gruel	<i>Kanjee</i>
„ (fine)	<i>Myda</i>	Rock salt	<i>Nimuk sung</i>
„ (very fine)	<i>Soojee</i>	Salt	<i>Nimmuk</i>
Gram	<i>Chunna</i>	Sugarcane	<i>Gunna, Ookh, Eekh</i>
Grass	<i>Ghas</i>		
Linseed	<i>Ulsce</i>	Wheat	<i>Géhan</i>
Maize	<i>Mukwec</i>		

RELATING TO SHOEING.

Anvil (a blacksmith's)	<i>Nihai</i>	Forge	<i>Mistree-khana</i>
Anvil (Shoeing-smith's, small)	<i>Sindan</i>	Fullering	<i>Punalee</i>
Bar Shoe	<i>Gol Nal</i>	Hammer	<i>Huthowree</i>
Buttress	<i>Sím turash</i>	Nail	<i>Prég or Mékh</i>
Calkins	<i>Khoont</i>	Pincers	<i>Zumboor or Sunrsee</i>
Clips	<i>Killif or Thokur</i>	Punch	<i>Símba or Pogur</i>
Cold Chisel	<i>Chhénée</i>	Rasp	<i>Rét</i>
Drawing Knife	<i>Chhúree</i>	Removing Shoe	<i>Kholbundee Nal</i>

Shoe with calkins (also with thick- ened heels)	<i>Khoontee-dar nal</i>	Shoe with clips Shoeing Shoeing Smith	<i>Thokur-dar nal Nalbundee Nal-bund</i>
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MISCELLANEOUS.

Amble, to	<i>Ruhwar chulna</i>	Fast (swift)	<i>Téz</i>
Arab, an	<i>Tazee or Urubee ghora</i>	Fat (s)	<i>Churbee</i>
Bag (for oats, &c.)	<i>Bora</i>	Fat (adj)	<i>Mota or Furbah</i>
Ball (physic)	<i>Duwu-kee-golee</i>	Farrier	<i>Saloturee</i>
Bite, to	<i>Katna</i>	Filly	<i>Buchhêree</i>
Biter (a horse)	<i>Kuttur</i>	Fire	<i>Ag</i>
Bleed, to	<i>Fusd Kholna</i>	Fire, to	<i>Daghna</i>
Bobtailed horse	<i>Bunda or lun- dooru ghora</i>	Flat (as a race)	<i>Suffart</i>
Bolt, to	<i>Phutjana</i>	Fleam	<i>Nushtur</i>
Breeding Dis- trict	<i>Khét</i>	Foment, to	<i>Sénkna</i>
Brook (water jump)	<i>Nala</i>	Forage	<i>Chora</i>
Buck, to	<i>Kandhee marna</i>	Forage (daily allowance of)	<i>Ratib</i>
Canter, to	<i>Poyon Chulna</i>	Gallop, to	<i>Downna, or Sur- put phénkna</i>
Chaff	<i>Bhoosa</i>	Garron, a (a raw boned horse)	<i>Dugga</i>
Clean	<i>Saf</i>	Geld, to	<i>Akhla kurna</i>
Crib-biter	<i>Howapeenê-wala</i>	Gelding	<i>Akhla</i>
Cold (adj)	<i>Thunda</i>	Godown (of water)	<i>Ghoont</i>
Colours	<i>Ghârdowree Kupra</i>	Grass Cutter	<i>Ghuseera</i>
Caster, a	<i>Nuzuree ghora</i>	Grass lands (pre- served for grass and hay)	<i>Rukh</i>
Colt	<i>Buchhêra</i>	Graze, to	<i>Churna</i>
Condiment	<i>Musala</i>	Graze, to send to	<i>Churuna</i>
Country-bred horse	<i>Dêsee ghora</i>	Grind coarsely, to	<i>Dulna</i>
Cowdung	<i>Gobur</i>	Do. finely, to	<i>Peesna</i>
Cowkick, to	<i>Kainchee marna</i>	Groom	<i>Saees</i>
Dandriff	<i>Roosee</i>	Groom, to	<i>Malish Kurna</i>
Defect (in a horse)	<i>Ayb</i>	Half-bred	<i>Doghla</i>
Digest, to (food)	<i>Huzm kurna</i>	Handful (double)	<i>Unjul</i>
Dirty	<i>Mya</i>	„ (single)	<i>Pusur</i>
Dismount, to	<i>Uturna</i>	Hand-rub, to	<i>Hath sé Mulna</i>
Ditch	<i>Khaee</i>	Hard mouthed	<i>Moohzor</i>
Door	<i>Durwaza</i>	Head groom	<i>Jumedar saees</i>
Double (bank)	<i>Dumdumma</i>	Hedge	<i>Bar</i>
Drench, to	<i>Duwa pilana</i>	High couraged	<i>Jan baz</i>
Drink, to	<i>Peena</i>	Hill pony	<i>Tanghun</i>
Drive, to	<i>Hankna</i>	Hollow backed	<i>Kuckhee, or zeen púshê ghora</i>
Dung	<i>Leed</i>	horse	<i>Ghora</i>
Eat, to	<i>Khana</i>	Horse, to	<i>Gurm hojana, bég lana, or alung hona</i>
English horse	<i>Bilayutee ghora</i>		
Entire (as a horse)			

Horse fly	<i>Dans</i>	Prance, to	<i>Nachna</i>
Hot	<i>Gurm</i>	Quiet(as a horse)	<i>Ghureeb</i>
Hurdle	<i>Phoos kee Tuttee</i>	Race	<i>Bazee</i>
Jade, a	<i>Khullur</i>	Race course	<i>Chuhkur, or</i> <i>Ghurdowr</i>
Jib, to	<i>Urb-jana</i>	Race horse	<i>Ghurdowree</i> <i>ghora</i>
Jockey	<i>Coachwan</i>	Rear, to	<i>Alifhona</i>
Jump, to	<i>Koodna or</i> <i>Phandna</i>	Ride, to	<i>Suwaree kurna</i>
Kick, to	<i>Pashtuk-marna</i> <i>or Lat chulana</i>	Rig, a	<i>Ek Andeea</i>
Kick, to (with both hind feet at once)	<i>Duluttee marna</i>	Roar, to	<i>Sherdumee kur-</i> <i>na</i>
Kicker	<i>Luttur</i>	Rope	<i>Russee</i>
Lead a horse, to	<i>Tihlana</i>	Rough-rider	<i>Chabuk Suwar</i>
Leather	<i>Chumra</i>	Run away, to	<i>Bhagjana</i>
Livery Stables	<i>Urgurra</i>	Saddle, to	<i>Zeen bandhna</i>
Litter (manure)	<i>Khad</i>	Scales	<i>Turazoo</i>
Lotion	<i>Dhone kee duwa</i>	Selling race	<i>Leelameebazee</i>
Lunge to, a horse	<i>Kawa dena</i>	Sheaf	<i>Poola</i>
Mare	<i>Ghoree or Mad-</i> <i>wan</i>	Shy, to	<i>Bhurukna</i>
Mill (hand)	<i>Chukkee</i>	Skittish	<i>Chunchul Shokh</i>
Mount, to	<i>Suwar-hona</i>	Slow(as a horse)	<i>Dheema or</i> <i>Mutha</i>
Neigh, to	<i>Hinhinana</i>	Slight built	<i>Chhurera budun</i>
Ointment	<i>Murhum</i>	Snort, to as an horse)	<i>Furfur kurna</i>
Once round(race course)	<i>Poora Chukkur</i>	Soap	<i>Sabun</i>
Pant, to	<i>Hampna</i>	Sound (as a horse)	<i>Bé ayb</i>
Paw, to (from impatience)	<i>Tapna</i>	Stable	<i>Istubbul or than</i> <i>or Tubéla</i>
Paw, to (strike out with the fore leg)	<i>Tap marna</i>	Stack (of hay, etc.)	<i>Gurree</i>
Pestle and mor- tar	<i>Hawun dista</i>	* Star(on forehead)	<i>Sittara</i>
Physic (s)	<i>Duwa</i>	Steeple-chase	<i>Tuttee bazee</i>
Physic, to	<i>Duwa dena</i>	Stomatic	<i>Pachuk</i>
„ to (purge)	<i>Jukab dena</i>	Straw—	<i>Pawal</i>
Pinch (of salt, etc.)	<i>Chú/kee</i>	Do. (a single)	<i>Tinka</i>
Plunge, to	<i>Lumbeean kurna</i>	Do. (for bedd- ing)	<i>Bichalee</i>
Pony	<i>Yaboo or Tattoo</i>	Stripe down back (like that of a donkey)	<i>Sélee</i>
Post and rails	<i>Jungla</i>	Stud-bred, a	<i>Lumburee ghora</i>
Pot (cooking)	<i>Dégchee</i>	Stumble, to	<i>Thokur khana</i>
Powder (medi- cine given dry)	<i>Súfoof</i>	Sweat	<i>Puseena</i>
Powder, a (medi- cine wrapped up in paper)	<i>Púreea</i>	Tan	<i>Bukla</i>
		Thick (as gruel, &c.)	<i>Garha</i>
		Thorough-bred	<i>Useel</i>
		Tired	<i>Thuk gya</i>

* NOTE.—If the star be so small that it can be covered by the thumb, it is called *Sittara péshanee*, and is considered among natives as a most unlucky mark.

Tow	<i>Sun</i>	Walleyed (one eye)	<i>Takee</i>
Trough(feeding)	<i>Kuthra</i>	Walleyed (both eyes)	<i>Sūlymanee</i>
Unsound	<i>Aybee</i>	Water	<i>Panee</i>
Trot, to	<i>Dūlkee chulna</i>	Water boiling	<i>Khoolta or phoota panee</i>
Veterinary Manual	<i>Furus namah</i>	Water, lukewarm	<i>Sheergurmpanee</i>
Vicious	<i>Budzat</i>	Weaver(a horse)	<i>Jhoomnéwala</i>
Walk, to (as a horse)	<i>Kudum kudum chulna</i>	Weighing house	<i>Tol ghur</i>
Walk, to (lead a horse out for a)	<i>Rowl kurna</i>	Window	<i>Khirkhee</i>
Wall	<i>Deewal</i>	Wind-sucker	<i>Howapeenéwala</i>
		Winning post	<i>Jeet kee lukree</i>

PHRASES.

The abscess has come to a head	<i>Phora puk gya.</i>
The horse has a sole back ...	<i>Ghoré kee peeth lugée hy.</i>
The horse bolted off the course ...	<i>Ghora chukkur sé phut gya.</i>
Where was that horse bred? ...	<i>Wuh kis khét ka ghora hy?</i>
My horse bores to the right ...	<i>Humara ghora dahiné ko bag kurla.</i>
The horse is not properly broken in	<i>Ghoré ka mooh kuchcha hy.</i>
The horse has cut himself brushing	<i>Ghoré ko néwur luga hy.</i>
The horse has a cataract in his off eye ...	<i>Ghoré kee dahinee ankh men jala pura.</i>
The horse is in hard condition ...	<i>Ghora ka budun guthéla hy.</i>
The horse is a crib biter (or wind sucker) ...	<i>Ghora howa peeta.</i>
Wash the horse's dock and sheath	<i>Ghoré kee sagirree aur fota dho.</i>
He fell off the horse ...	<i>Wuh ghoré pur sé gira.</i>
The horse's leg is filled ...	<i>Ghoré ko py agyee.</i>
Put the shoe firmly on ...	<i>Nal jikkur ke bandho</i>
The horse looks dull ...	<i>Ghora sust maloom déta hy.</i>
The mare is in foal ...	<i>Ghoree gabhin hy.</i>
Foment the horse's leg with hot water for half an hour ...	<i>Ghoré ké pyr ko gurm panee sé adhé ghunté tuk sénko.</i>
He hogged the mane of his pony	<i>Usné apné tattoo kee yal ko bubree keeya.</i>
Slaken the girths ...	<i>Tung dheelé kuró.</i>
Tighten the girths ...	<i>Tung kusso.</i>
Give your horse two or three godowns of water...	<i>Apné ghoré ko do teen ghoont panee do.</i>
The horse chucks his head (when being ridden) ...	<i>Ghora sir marta.</i>
The horse has cracked heels ...	<i>Ghoré kee gamchee men chheewur ho gya.</i>
Hold my horse ...	<i>Humara ghora thamo.</i>
The jockey was not able to hold the horse ...	<i>Coachwan ghoré ko nuheen rok sukku.</i>
Lengthen the stirrups one hole ...	<i>Rikab ko ék ghur aur lumba kuro.</i>
Shorten the stirrup two holes ...	<i>Rikab ko do ghur churhao.</i>
The horse's hoof slopes too much, take more off the toes ...	<i>Ghoré ka sūm zeeada sullamee hy, punyé ké neeche sé aur cheelo.</i>
The horse has hurt his leg ...	<i>Ghoré ke pyr ko chot lugée,</i>